COMMUNICATIONS SUPPORT FOR HEALTH PROGRAM

DRIVERS OF MODERN CONTRACEPTIVES USE, ANTENATAL CARE, PLACE OF DELIVERY, AND USE OF POSTPARTUM AND NEONATAL SERVICES IN SELECTED AREAS OF ZAMBIA

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Contents

Executive Summary

In September 2011, the Communications Support for Health (CSH) program in Zambia conducted research on safe motherhood practices across the country. The research was undertaken to inform the design of a health campaign communication strategy and campaign messages. This is part of CSH's effort to implement effective and evidence-based safe motherhood and family planning communication campaigns that will contribute to improved family planning and reproductive health behaviors and practices among women and couples.

General research questions included the following:

- What factors influence the practice of safe motherhood behaviors?
- What, and from whom, do women learn about safe motherhood behaviors?
- What messages, channels, and communication strategies are likely to encourage safe motherhood behaviors in the safe motherhood campaign?

Introduction

Safe motherhood means that all women receive the care required for a safe and healthy pregnancy and delivery.[1] It embodies the philosophy that women and infants should not die or be harmed during pregnancy and childbirth. The concept of safe motherhood is closely related to reproductive health, which focuses on people's ability to have a satisfying and safe sex life; their capability to reproduce; and the freedom to decide if, when, and how often to do so. Reproductive health also focuses on the rights of men and women to be informed and to have access to safe, effective, affordable, and acceptable methods of family planning of their choice for the regulation of fertility and the right of access to appropriate health care services that will enable women to go safely through pregnancy and childbirth and provide couples with the best chance of having a healthy infant.[2]

Zambia's maternal mortality ratio[3] ranks among the highest in the world. The situation of unwanted and mistimed pregnancy and its consequences has continued to be a major obstacle to achieving the goal of reducing maternal and child morbidity and mortality in Zambia. Low contraceptive use in Zambia has resulted in high fertility trends over the years. Only about half of pregnant women receive antenatal care (ANC) for the first time by 5.1 months of gestation, which is late. This robs providers of the opportunity for early detection of danger signs and ultimately the opportunity for management of maternal complications.[4]

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[1] White Ribbon Alliance for Safe Motherhood 2000. *Awareness, Mobilization and Action for Safe Motherhood: A Field Guide*. Washington, DC: White Ribbon Alliance for Safe Motherhood.
[2] The World Health Organization. 2011. *Reproductive Health*.
[3] Maternal mortality ratio refers to the number of women who die from pregnancy or pregnancy-related causes per 100,000 live births.
[4] Central Statistical Office (CSO), Ministry of Health (MOH), Tropical Diseases Research Centre (TDRC), University of Zambia, and Macro International Inc. 2009. Zambia Demographic and Health Survey 2007. Calverton, Maryland, USA: CSO and Macro International Inc.

Slightly more than half (52 percent) of all births occur at home (Zambia Demographic and Health Survey (ZDHS), 2007). Rural areas record the highest number of home births (66.5 percent) as compared to the urban areas (15.7 percent). Use of postpartum care services is also very low in Zambia. According to ZDHS, more than half (51 percent) of women did not receive any postnatal care.

Methods

The research described in this report was a qualitative study that was carried out in five districts of three provinces in Zambia: Ndola and Masaiti in Copperbelt Province, Chipata in Eastern Province, and Livingstone and Kazungula in Southern Province. A total of 48 in-depth interviews (IDIs) were conducted with women aged 18–49. This included pregnant women and mothers of children aged 6 months or younger. The study also interviewed fathers of children under age 6 months as well as health care providers and community health workers. All interviews were audiotaped, transcribed, and translated into English. The data was analyzed for themes, subthemes, and patterns.

Summary of Findings

Family Planning

Knowledge about the use and benefits of contraceptives was generally high. The women knew the benefits of using modern contraceptives, reporting that they were meant for child spacing, limiting the number of children to levels that parents can effectively look after, and allowing mothers the time and space to pursue a healthier life. The most commonly known and used contraceptives among the participants were the pill, injectables, and condoms. Apart from a few instances, contraceptives were generally available and accessible to the public.

Most of the information on modern contraceptives was obtained from health care providers and community health workers. The community understood and accepted this information. This was reflected by the number of women seen queuing at health centers for reproductive health services, including obtaining modern contraceptives. Modern contraceptives were seen as effective for family planning but were in many cases viewed by both users and nonusers with skepticism because of their side effects: prolonged menstruation, dizziness, headaches, and irregular menstrual periods, among others. Side effects were also the major barrier to contraceptive use.

Many women and men, however, continued to use modern contraceptives because the benefits were perceived to override the side effects. These benefits were further enhanced by the ability to change contraceptives for ones with fewer side effects. The choice of contraceptives was also based on the length of time before replenishment is needed. Decision making on the use of modern contraceptives was primarily a prerogative of the woman. However, husbands were consulted. In some cases, despite a husband's refusal to use contraceptives, some women used contraceptives without the husband's knowledge.

Some women used traditional contraceptives. However, many were not eager to use them because they were viewed as less effective and not easily accessible.

Antenatal Care

Knowledge about ANC was high. Participants were able to discuss birth preparedness, malaria and HIV in pregnancy, danger signs during pregnancy, activity and exercise during pregnancy, childbirth, and the significance of good nutrition for a pregnant woman or a breastfeeding mother. Information on ANC was provided by nurses and community health workers as well as by members of the Safe Motherhood Action Group (SMAG). Other information was obtained from ordinary community members, such as female parents, neighbors, and friends.

Some of the common problems experienced during pregnancy were bleeding, backache, swelling and foot pain, dizziness and vomiting, and shortness of breath. People interviewed also showed awareness of the danger signs during pregnancy and after delivery, and they knew that these symptoms indicate that the woman or baby is at risk and should be rushed to the health center or hospital. Among the services received by pregnant women were check-ups for weight, blood pressure, and condition of the baby.

ANC was seen as beneficial because it contributes to safe delivery, especially in instances of pregnancy complications. Among the most important benefits of ANC services were the services provided to pregnant mothers who had complications such as breech presentation.

Women do not place great importance on ANC because they do not understand the usefulness of these services. Their attitude towards ANC is reflected by tardiness to their first appointment.

ANC first-time attendance frequently took place during their second trimester. This was done to reduce the number of times that they would have to attend the ANC clinic. Others believed that it was not possible for health care providers to feel and know the position of the baby during the early stages of pregnancy. Still others considered ANC as only for use when one had pregnancy complications.

Generally, the quality of health care services was reported to be good and seemed to be measured by the type of reception received at the health center and whether people were able to find the necessary help for their problem. Dissatisfaction with the services stemmed from the long wait before being attended to and the lack of adequate attention from health care providers.

Women's choice of which health center to use usually depended on which one was nearest to their homes. Choice of health center also depended on the level of congestion at that clinic and the range of ANC and support services offered.

A few males provided support to their wives on contraceptive use and by reminding their wives of their appointments for ANC. During childbirth, some males escorted or accompanied their wives to the health center. Otherwise, male participation was observed to be low.

Delivery and Postnatal Care

Some pregnant women delivered their babies at home, either unintentionally or intentionally. Some women fail to recognize the signs of labor, others are embarrassed that they were unable to buy the items needed to prepare for the birth of their baby, and others do not recognize the risks of home delivery.

A substantial proportion of women had come to believe that it is safer to deliver in a health center. Many more seemed to be willing to deliver in health centers but were hampered by the long distance and other factors, such as long queues, that compel the women to go back to their homes.

Soon after delivery, the baby is given to its mother, but only after the mother has a bath. She is also told to breastfeed the baby and to bathe it. In some cases, newborns were reportedly not being given any medications.

Mothers showed knowledge about how to care for themselves and for their baby and knew danger signs for both a mother and her baby during the first 6 weeks after birth. Although mothers generally took their baby for postpartum care, emphasis seemed to be more on the baby than the mother. During these visits, mother and baby were checked for danger signs and complications, and the baby's weight was checked.

Recommendations

Cross-Cutting

1. Improve the attitude of health care providers toward clients who seek health services;
2. Use community health care providers to proactively disseminate information on ANC, delivery, and postnatal and other reproductive health issues, with deliberate efforts to target those who do not seek health care services or who deliver at home and also to provide greater support to first-time mothers; and
3. Strengthen and upgrade existing lower level health centers to higher level facilities in order to provide a wider range of reproductive health-related services.

Antenatal Care

4. Use more teaching aids to enhance understanding by pregnant women and mothers;
5. Decongest ANC clinics by increasing the number of days on which pregnant mothers can receive ANC. This will also serve to reduce the number of women per session to allow more time for discussion and make them more interactive;
6. Conduct ANC clinics in the morning, especially for rural areas, to cater to women who live far from health centers; and
7. Reemphasize the importance of early attendance for ANC services.

Family Planning

8. Provide more information on other contraceptive options at women's disposal to help them realize that they have the opportunity to reduce or avoid side effects;
9. Provide more opportunities for the public to access information on contraceptives from health centers in order to reduce influence of community members who discourage contraceptive use; and
10. Increase and improve youth-friendly reproductive health services to encourage youth to prevent premarital pregnancies.

Delivery and Postnatal Care

11. Increase campaigns targeted to male partners to increase their involvement in reproductive health issues;

12. Emphasize to health care providers, pregnant women, and mothers the equal importance of postpartum care for both mothers and babies, rather than to weigh more heavily on postpartum care for babies alone; and
13. Use local role models in communities to disseminate information on the benefits of using delivery services at health facilities and the disadvantages of home delivery.

1. Introduction

Zambia's maternal and child mortality ranks among the highest in the world. In Zambia, about 591 women die in pregnancy or related causes per 100,000 live births, and about 119 children per 1,000 live births die before age 5 (ZDHS 2007).

It is for this reason that ensuring women's safe and healthy pregnancy, free from disability, complications, and death as well as ensuring the health of newborns remains among key health priorities for the Government of the Republic of Zambia's (GRZ's) Ministry of Health (MOH), as highlighted in the Zambia National Health Strategic Plan (ZNHSP 2006–2010).

Zambia has suffered a high and ever-increasing disease burden amidst enumerable health delivery challenges. To deal with this burden, since 1992 the MOH has been implementing health sector reforms aimed at improving health service delivery and the health status of Zambians (ZNHSP 2006–2010). These reforms aimed to provide the people of Zambia with equity of access to cost-effective, quality health care as close to the community as possible.

The MOH has also committed to achieving Millennium Development Goal (MDG) targets by improving the quality of health care services and providing greater and equitable access to health care for its people. Despite the MOH making significant strides toward achieving the health reform objectives, these achievements have not resulted in commensurate reductions in the disease burden and performance against the MDGs.

To support these efforts, USAID is providing technical assistance to the GRZ in strengthening national health communications activities. The aim is for GRZ to develop evidence-based health communications activities supported by CSH. These communications activities should translate to increased, sustainable local capacity and positive behavior changes that reinforce GRZ efforts in family planning/reproductive health (FP/RH) interventions, which is but one of the four focal areas under the CSH project.

In response to this challenge and goal, the CSH program in Zambia conducted research on safe motherhood practices across the country. The research was undertaken to inform the design of a health campaign communication strategy and campaign messages. This is part of CSH's effort to implement effective and evidence-based safe motherhood and family planning communication campaigns that will contribute to improved family planning and reproductive health behaviors and practices among women and couples.

The CSH safe motherhood study was guided by the integrated approach to the delivery of a safe motherhood program and incorporated the various components of reproductive health (RH), including family planning, ANC, labor and delivery, newborn care, postpartum care for mother and newborn, prevention of mother-to-child transmission of HIV (PMTCT), and adolescent sexual and reproductive health. Malaria in pregnancy is explored by another study that is being conducted by CSH.

1.1 Safe Motherhood Situation in Zambia

Safe motherhood means that all women receive the care required for a safe and healthy pregnancy and delivery.[5] Safe motherhood embodies the philosophy that women and infants should not die or be harmed during pregnancy and childbirth.

The concept of safe motherhood is closely related to reproductive health, which focuses on people's ability to have a satisfying and safe sex life and their capability to reproduce and the freedom to decide if, when, and how often to do so. Reproductive health also focuses on the right of men and women to be informed and to have access to safe, effective, affordable, and acceptable methods of family planning of their choice for the regulation of fertility and the right of access to appropriate health care services that will enable women to go safely through pregnancy and childbirth and provide couples with the best chance of having a healthy infant.

As already alluded to, Zambia's maternal mortality ratio (MMR)[6] ranks among the highest in the world. In Zambia, about 591 women die in pregnancy or related causes per 100,000 live births (ZDHS 2007). This trend has not changed much over the years. The MMR increased from 649 in 1996 to 729 by 2002 and dropped to 591 by 2007. With fewer than 5 years to go, the possibility of Zambia reducing MMR to the MDG goal of 162 maternal deaths per 100,000 live births by 2015 does not appear to be realistic.

In terms of child mortality in Zambia, about 119 children die before the age of 5, and about 34 babies die within the first 30 days after birth per 1,000 live births. The trends in child and neonatal mortality appear to be almost stagnant at high levels. In 1992, neonatal mortality was 43 per 1,000 live births, and by 1996 it had only reduced to 35 per 1,000 live births. In 2001, Zambia saw an increase in neonatal mortality to 37 deaths per 1,000 live births but experienced a reduction in 2007 to 34 neonatal deaths per 1,000 live births (ZDHS 2007).

Below are a number of factors that play a significant role in the observed trends in maternal and child mortality.

1.2 Family Planning

The situation of unwanted and mistimed pregnancy and its consequences has continued to be a major obstacle to achieving the goal of reduced maternal and child morbidity and mortality in Zambia.

The 2007 ZDHS revealed that about 16 percent of births are unwanted, while 26 percent are mistimed or desired at a later period (ZDHS 2007). This state of affairs is especially worsened by the phenomenon of teenage pregnancies. The 2007 ZDHS reported that about 3 in 10 young women aged 15–19 have experienced childbearing. This problem can be reduced by the use of available contraceptives or changes in sexual practices.

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[5] White Ribbon Alliance for Safe Motherhood 2000. *Awareness, Mobilization and Action for Safe Motherhood: A Field Guide*. Washington, DC: White Ribbon Alliance for Safe Motherhood.

[6] MMR refers to the number of women who die from pregnancy or pregnancy-related causes per 100,000 live births.

In Zambia, knowledge about any contraceptives is almost universal. About 97 percent of women know at least one method of contraception. Although contraceptives are available and their use has been increasing over the years, contraceptive use is still very low in Zambia. The male condom and the pill are the most commonly known modern methods (92 percent each). The ZDHS reports that only about 30 percent of women in Zambia use any form of contraception (ZDHS 2007) and only 25 percent use modern contraceptive methods. The pill is the most commonly used method among women, while the intrauterine device (IUD), implants, and the female condom are the least used modern methods (less than 1 percent each). Although married women are the most likely to get pregnant, overall unmet need for family planning in the same group is about 27 percent (ZDHS 2007).

The low contraceptive use in Zambia has resulted in the prevailing high fertility trends over the years. Zambia records the second highest total fertility rate in sub-Saharan Africa. In Zambia, a woman gives birth to an average of six children by the time she reaches menopause (ZDHS 2007). This has only dropped slightly, from a high of 7.2 in 1980 to 5.9 in 2002, and slightly increased to 6.2 in 2007.

The direct result of the observed trend is high maternal and child mortality and, therefore, the need to ensure increased use of the available contraceptive methods by women and couples.

1.3 Antenatal Care

ANC is one of the key interventions for safe motherhood. This involves the regular monitoring of the mother and baby by a trained health care provider, midwife, or obstetrician (or by a combination of these professionals) during pregnancy (Maternal, Newborn and Child Health Communication Strategy (MNCHCS) 2009). The primary goal of ANC is to provide care to the woman throughout her pregnancy and after delivery and to ensure safe delivery of a healthy baby. At least four ANC visits are recommended, ideally with the first visit during the first 3 months of the pregnancy.

Under the initiative of focused ANC, emphasis is placed on the quality, and not the quantity, of ANC visits. The focus is to ensure skilled attendance, provide services that are linked to the gestation age of pregnancy, and specifically address the most prevalent issues affecting women and children. By so doing, it is hoped that any complications that may arise are detected and treated early in the pregnancy.

Early and regular contact with pregnant women during ANC is important because it gives health providers an opportunity to teach pregnant women the skills for preparing birth plans and complication readiness plans as well as to distribute information on warning and danger signs in pregnancy, personal hygiene, nutrition, rest, and other topics.

The ZDHS reports that ANC services obtained from skilled health workers (e.g., midwives, clinical officers, nurses, doctors) is as high as 87 percent. However, only about half of pregnant women receive ANC for the first time by 5.1 months of gestation, which is late. This robs providers of the opportunity for early detection of danger signs and ultimately the management of maternal complications.

1.4 Child Delivery

The Zambia safe motherhood intervention was primarily designed to ensure that pregnant women prepare and plan for a safer birth, preferably in health centers by skilled attendants. Efforts are being directed at ensuring that women deliver in clean, infection-free delivery rooms and that providers use sterile equipment. The 2006–2010 ZNHSP recognized the importance of birth preparedness. Lack of awareness of the danger signs of obstetric emergencies and a lack of knowledge about the appropriate response when emergencies occur are major contributing factors to many maternal and newborn deaths (MNCHCS 2009–2014).

It is alarming to note that in Zambia, slightly more than half (52 percent) of all births occur at home (ZDHS 2007). Rural areas record the highest number of home births (66.5 percent) as compared to the urban areas (15.7 percent). According to the 2007 ZDHS, almost half (47 percent) of births are assisted by a skilled worker, 25 percent by a relative, and 23 percent by a traditional birth attendant. Five percent were not assisted.

1.5 Postpartum Care for Mother and Newborn

Postnatal care is critical to the survival and health of both the mother and the child. The postpartum period is defined as the first 6 weeks after birth (MNCHCS 2009–2014). The focus is to ensure that both the mother and the newborn have access to quality post natal care. Contact with the woman during this period is also used as an opportunity for health providers to promote healthy behaviors that affect the woman and the newborn. The main objectives of postnatal care are to ensure early identification, referral, and management of any emergencies for both the mother and the baby as well as the promotion of healthy behaviors (including breastfeeding and prevention of infection and diseases).

To achieve this, the MOH has provided guidelines on the provision of postnatal care and has also identified a number of messages to dispel some of the community myths and misconceptions and reduce practices that may endanger the health of the mother and the newborn baby. The women also are given skills and knowledge on how to identify danger signs in both the mother and the newborn during this period. Myths and misconceptions are discussed in this report.

In spite of the efforts being made, use of postpartum care services is very low in Zambia. According to the ZDHS, more than half (51 percent) of women did not receive any postnatal care, although 39 percent received postnatal care within 2 days of delivery. The 2007 ZDHS further reports that young mothers and mothers who gave birth to their first child were more likely to go for postnatal care within the first 2 days after giving birth.

1.6 Newborn Care

The care of the newborn during the postnatal period is important. This includes caring for the cord; preventing infections; keeping the baby warm; providing the child with immunizations against diseases such as polio, measles, and tetanus; and ensuring that the child receives good nutrition.

The scope of safe motherhood initiatives also extends to disease prevention for the mother and the newborn. Therefore, safe motherhood initiatives emphasize PMTCT, the screening and treatment of sexually transmitted infections (STIs), and malaria in pregnancy.

1.7 PMTCT and STI Prevention

In an effort to ensure the health of the mother and newborn, the safe motherhood initiative has integrated PMTCT. In Zambia, almost all[7] HIV infection in children aged 0–15 is a result of mother-to-child transmission and, as such, the integration of PMTCT in the safe motherhood package is key.

The objectives of the safe motherhood initiatives are to increase the percentage of women who know their HIV status, to increase the percentage of women who get access to family planning, to prevent mother-to-child transmission of HIV, and to ensure that those who are HIV+ are also provided with information about how to safely breastfeed their newborn babies.

Apart from the highlighted factors, reproductive health further recognizes the need for women, men, and couples to know their reproductive rights and responsibilities and be able to make informed choices about their reproductive functions. Implicit in this is the recognition of the right to information and RH services as a human right.

[7] National AIDS Council. 2009. Zambia HIV Prevention Response and Modes of Transmission Analysis (Lusaka).

2. Research Purpose

As discussed in the introduction, the purpose of this research was to learn about influencing factors for safe motherhood behaviors in order to inform the development of messages, strategies, and community and health sector partnerships for the safe motherhood campaign.

2.1 Specific Objectives

- To find out what factors influence the practice of safe motherhood behaviors;
- To identify what and from whom women learn about safe motherhood behaviors and beliefs; and
- To explore what messages, channels, and communication strategies are likely to encourage safe motherhood behaviors in the safe motherhood campaign.

2.2 Research Methodology

This was a qualitative study, and IDIs were used to explore the study topics. This study approach is suitable for exploring perceptions, beliefs, practices, norms, and generally for identifying enabling factors and barriers to behaviors of interest—in this case, safe motherhood behaviors. IDIs particularly facilitated the collection of in-depth, personal information and the chronological occurrence of events that provided detailed information about the target audience and the desired behaviors.

2.3 Study Audiences

Primary Target Audience

The primary audience was women aged 18–49. This audience was further divided into subgroups, including the following:

- Mothers of children aged 6 months or younger. These included women who did and did not consistently use safe motherhood services.
- Pregnant women. These included women who did and did not consistently use safe motherhood services.

Secondary Target Audience

The secondary audiences for this study were fathers of children aged 6 months or younger, community health workers, and health workers.

2.4 Study Setting

This study was conducted in the urban and rural/peri-urban areas of the Livingstone, Chipata, and Ndola districts in the Southern, Eastern, and Copperbelt provinces of Zambia. The selection of these provinces was based on the ranking of provinces and districts on three indicators, including ANC coverage, immunization coverage, and percentage of deliveries by skilled personnel (MOH 2007). Southern province was chosen as the low-performing province and Copperbelt as the high-performing province. Eastern province falls within the middle category. Within the three provinces,

Livingstone, Chipata, and Ndola districts were prioritized for this study because they are comprised of distinct urban and rural populations from which to draw the required participants.

Qualitative data was collected from households and two health centers per district. The health centers where the data collection was conducted were selected with help from the district health management office and were based on the extent to which reproductive health services were used. Consideration for the prioritization of health centers included accessibility. The target audiences were selected as they attended ANC, postnatal, and under-five services.

The selection of the women who did not use services consistently were based on the screening protocol and their ANC and postnatal attendance, as recorded in their health center records.

2.5 Data Collection

Study Tools

Multiple semistructured interview guides were used to collect the data, and interviews were conducted in a conversational style. The interview guides are included in Appendix 1 of this report.

Training of Interviewers, Moderators, and Note Takers

This study used moderators, note takers, and transcribers to collect the data, take notes during the interviews, and transcribe the data. Interviews were conducted by facilitators who were trained by CSH in conducting qualitative formative research.

2.6 Demographic Forms

A screening protocol was used to guide the recruitment of suitable participants, and demographic information was recorded by the interviewer for each participant prior to commencing the interviews. This information included information on age, marital status, number of children, and residency.

2.7 Consent and Interview Procedure

Potential participants were informed of the topic and the objectives of the discussion. A written consent process was used. To decrease risk of breach of confidentiality, all signed consent forms were kept separate from the data. Each participant was given a copy of the consent form to read. If the participant was unable to read, the interviewer then read the entire consent form to him/her. After the consent form had been read, the participant was given time to ask questions. Both the participant and the interviewer signed the consent form. Participants unable to sign for themselves made a mark on the form. The name of the respondent was printed below the mark, and a witness to the consent/assent procedures signed the form. A copy of the consent form was given to the participant to keep.

2.8 Data Management

Transcription and Translation

Digital recorders were used to record the data. All interviews were transcribed verbatim. The transcription of data and data collection was conducted simultaneously.

Data Analysis

Data was coded and analyzed for themes and patterns.

3. Findings

3.1 Family Planning

Knowledge About the Use of Contraceptives

Participants showed wide knowledge about contraceptives; they reported that contraceptives could be used to space children to levels that parents could effectively care and provide for, to provide the opportunity for a mother to regain her health and strength after delivery, and to enable her to find the time and space to pursue other activities of her interest and choice.

> *…We take them to prevent ourselves from getting pregnant.* (Urban contraceptive user, 28-year-old mother of two in Livingstone)

> *The benefits are that you can plan nicely how to have children … you can only have children when you are ready. You can only stop taking them when you want to have a child.* (Urban contraceptive nonuser, 22-year-old mother of two, Livingstone)

Knowledge on Types of Modern Contraceptives

Participants were also generally knowledgeable about the types of contraceptives available to them. The most commonly reported were the pill, injectables, and condoms. Other contraceptive methods—such as the IUD, vasectomy, tubal ligation, and diaphragms—were less spontaneously mentioned. Some participants, especially in the rural areas, reported never having heard of them. A few had heard of them but had never used them. Contraceptives such as vasectomy were reported to be accessible at higher level health facilities such as hospitals and not at lower level health centers. Participants frequently referred to contraceptives according to the duration in which the contraceptive was effective for preventing pregnancy; referring to them as "for 3 months," "for 2 years," "for 4 years," "for 5 years," and so on.

> *Some use the one for 5 years … In my case, I just get the one for 3 months.* (Rural contraceptive user, 18-year-old mother of one, Kazungula)

> *I hear the pill is taken once every day until you finish the cycle. For the injection, there is one for 3 months ... when they give you one today, they will tell you when to go back for the next one for the next 3 months. I have also heard about the one for 5 years* (Urban contraceptive nonuser, 23-year-old mother of two, Chipata)

> *I was advised to use condoms or I don't know the name of that tube they use (referring to IUD) the one you use for 10 years I don't know what they call it.* (Urban ANC nonuser, 24-year-old mother of two, Ndola)

Sources of Information on Modern Contraceptives

Much of the information on contraceptives was obtained from health facilities, usually from health workers (e.g., nurses, midwives, clinic officers) during family planning clinics. Information was also obtained through outreach activities. At health facilities, information was usually provided by nurses, while community health workers were more prominently responsible for providing information in the communities. Some health centers had programs where nurses and other health providers conducted outreach activities in the communities, besides those of the community health workers and traditional birth attendants.

> *I heard about contraceptives from the clinic when I had my fourth child. We were told that we should space our children by using contraceptives such as pills.* (Urban contraceptive nonuser, 37-year-old mother of four, Chipata)

> *We have traditional birth attendants and those are the ones who really help us in the community.* (Rural health provider, Kazungula)

Information on family planning, and particularly contraceptives, is also obtained from ordinary community members such as friends, parents, neighbors, and other community members.

> *It's my neighbor who gives me this information ... when we are chatting, she tells me about modern contraceptives.* (Urban contraceptive user, 23-year-old mother of two, Chipata)

> *My mother is the one who told me about them. She told me that there were pills called microgyn and microroot. It was up to me to choose which one I wanted to try. Therefore, I went to the clinic [to find out].* (Rural contraceptive user)

> *In the community we meet as women. That's when we discuss such issues.* (Urban ANC user, 37-year-old mother of four, Chipata)

Regarding the type of information shared, health care providers supplied information on the benefits of family planning, the different types of contraceptives that were available, and also the disadvantages of not using contraceptives. They taught about the available types of contraceptives, their side effects, and the need for users to report such side effects to their health care providers in time.

> *We teach them how to space their children. We tell them that if you have a child, it should take another 2 years before you can conceive another child because if you are having a child after another, it will be difficult to take care of them.* (Rural community health worker)

The type of information that was shared by ordinary members of the community was generally on perceptions about side effects, the sharing of experiences about contraceptive use, beliefs about the prolonged use of contraceptives, and some encouragements on the benefits of contraceptive use from satisfied users.

Information Dissemination

In most cases, information was verbally disseminated to the women as a group by one or more nurses or community health workers. First, the nurses taught the day's topic and, after that, the women were allowed to ask questions. In instances where the women did not adequately understand what had been taught during the group session, further explanation was given to them individually or in smaller groups as the situation dictated. Posters and other written materials such as flipcharts were use, where they were available. Other means of dissemination were reported, such as radio (including community radio), outreach activities, and drama performances. The modes of information dissemination were, however, not uniformly available across all geographical areas. Some areas, particularly rural areas, share family planning information verbally due to lack of teaching aids and posters.

> *They just talk [to us verbally]. Sometimes when there is something special there might be one nurse there; two or even three.* (Urban ANC user, 24-year-old mother of two, Ndola)

> *We use group discussions, posters, or leaflets. [With regard to drama], not at the moment [because] we don't have a drama group … Group discussion is effective.* (Rural health provider, Kazungula)

While many saw the group sessions as effective, others saw them as not appropriate, since some women were not able to ask questions for clarification because they felt intimidated by the group. It was suggested that smaller groups or individual sessions were more effective in such situations. At the same time, individual sessions were acknowledged as not practical, given the large number of women against a very small number of health care providers who were available for the purpose. On the other hand, group sessions were seen as better than individual sessions because it allowed group interaction and thus were more effective for understanding what was being taught.

> *Because if you are talking one to one, the person will be free to ask any question. Other people are very shy (in groups) and would think the question they want to ask may not be very relevant so they will just keep it to themselves.* (Urban health care provider, Livingstone)

> *Because it [group discussion] allows for interaction, it will be easy to understand and ask questions when they explain those issues.* (Rural ANC user, 32-year-old mother of four, Kazungula)

Extent of Understanding and Acceptability of Information

Overwhelmingly, the information received was said to have been understood and accepted. This was reportedly reflected by the many mothers in the communities who were spacing their children and following what they were taught at the health centers. However, a rural health provider expressed that it was not easy to provide information in a way that the community would understand very well due to the high level of illiteracy because so many had not gone far in school. In the process of simplifying the information for the community, some of the messages were not understood as they were actually meant to be understood. This was especially so when providers sought suitable local language vocabulary to convey the same message.

> *The levels of understanding … especially here in the villages … most of the women we have are illiterate … You really have to make sure you explain in the simplest language so that they understand. Sometimes, because you want them to really understand … you might even miss the point because you want to explain something in their local language. Now you want to really make sure this woman is understanding. Sometimes you don't even have the right words to use.* (Rural health provider, Kazungula)

Perceived Extent of Unplanned Pregnancies and Abortions

It was almost unanimously reported that unplanned pregnancies were very common in their respective communities. Participants referred to a pregnancy as unplanned or unwanted if the pregnancy occurred at a time when the couple did not have the financial means to provide for the baby and when there was little spacing between births. Some of the unplanned pregnancies were said to be the result of extramarital and premarital sex, especially among the young people. Participants, were, however, quick to mention that this trend of having unwanted pregnancies appears to have gone down. This scenario was attributed to increased use of modern contraceptives.

> *Unplanned pregnancies are common. You will find that the man has no money to buy anything for the baby … Sometimes the baby could be only a year old and the mother would get pregnant again without planning for it.* (Rural contraceptive nonuser)

> *Mostly, these unplanned pregnancies come from extramarital affairs and boyfriend, girlfriend relationships. … The girl gets pregnant when they are not prepared for that child; they just sleep around.* (Urban contraceptive user)

Participants' responses showed mixed perceptions about the extent of abortions in their communities. Urban areas seemed to have more reports of abortions in their communities than rural areas. The reported lack of abortions was linked to the fact that an abortion is a private occurrence and very few people, if any, come to learn about it. Abortions were also perceived as few because many women preferred to keep their children rather than abort the pregnancy. Abortions that took place were said to be common mostly among single and young women. This is because they were less likely to seek contraceptives from health centers for fear of how society would

perceive them. Yet, many young people were sexually active. Some mothers were reported as taking the lead in ensuring that their daughters' pregnancies were aborted.

> *They have made it a habit … especially young girls. Even women abort. It is really common … Even after aborting, they still go ahead and get pregnant again and abort again…It has become like child's play.* (Urban contraceptive user)

> *Some women abort; especially school-going children, as they are shy and fear what people would say about them if they found that they were pregnant. Some mothers actually take their children for abortions to prevent people from talking about them.* (Rural contraceptive nonuser)

3.2 Barriers to Contraceptive Use

Side Effects and Beliefs

The biggest barrier to contraceptive use seemed to be side effects and related beliefs. The most prominently reported side effects were prolonged or heavy menstrual periods. Others reported the discontinuation of their menstrual periods. Some women had stopped using a contraceptive because it delayed the onset of their next menstrual period. Contraceptives caused others to either gain or lose weight. Other reported side effects were failure to conceive even after they discontinued the use of modern contraceptives, swollen or painful legs, headache, stomach pains, and dizziness. Some women who experienced such side effects decided to stop using contraceptives, while some among those who had never used them were discouraged to start using them.

> *Modern contraceptives are bad because they make them lose weight; some stop having their monthly periods. For me I used to bleed a lot when I am having my monthly periods. When blood comes out, you would find a lot of clots in the blood. That's when I decided to stop because I saw that family planning was not for me.* (Rural contraceptive nonuser)

> *Family planning (injection) reacts on me [and that is why I stopped using it] … I last used it in 2008.* (Rural contraceptive nonuser)

Lack of Contraceptive Alternatives

One of the barriers to contraceptive use is the lack of availability of alternatives in cases where the available methods give the user severe side effects. Women, therefore, complained that they have a narrow range of contraceptive methods from which to choose. As a result, when they try one contraceptive method and they experience severe side effects, they give up on contraceptives altogether because of a lack of alternative methods.

Reliance on Questionable Sources of Information

It was interesting to note that information obtained from friends and other community members seemed to be more negative and discouraging, as it dwelt quite substantially on the side effects and the negative beliefs pertaining to the use of modern contraceptives. This was confirmed by a health provider who emphasized the need to inform the women, in advance, especially on issues about side effects. It was also notable that most of the negative information about contraceptives seemed to be transmitted by people who themselves had merely heard about the side effects from other third parties; some of them had never used modern contraceptives before or had stopped using them. It was common for the participants, therefore, to talk about what they had heard from peers and other community members rather than what health providers had said.

> *I am scared of the things I hear. For example, that it causes severe bleeding. When you are pregnant, you release big blood clots from the vagina and that these contraceptives can cause a woman to become barren. These are the issues which scare me from using modern contraceptives.* (Rural contraceptive nonuser)

> *[There is need to avail to the women] all information … we shouldn't hide anything … so that when they come for family planning, they are aware of everything. This is when a woman comes for family planning … some [health providers] will give them family planning products without explaining to them the side effects. Immediately this woman experiences one side effect, she will go and alert the friends that "don't go and get contraceptives because this is what happened to me." … If we counsel the women and explain to them, those problems will reduce.* (Rural health provider, Kazungula)

In contrast, information obtained from the health care providers and community health workers was more positive and seemed to be more effective in encouraging contraceptive use. For this reason, some women reported trusting health providers and community health workers as sources of information about modern contraceptives, rather than ordinary community members, particularly those who had never used them before.

Religion and Unfavorable Norms of Contraceptive Use

Other women seemed to refuse to use modern contraceptives on religious grounds, believing that it is a sin to intentionally obstruct pregnancy. Rather, nature should be allowed to take its course. Another argument seemed to dwell on the difference between being forced to use contraceptives and making a spontaneous decision to use contraceptives. It was argued that women should not be forced to use contraceptives but should be left to make their own independent decisions. In some cases, some women may not want to use condoms because they have not been exposed to contraceptives and, therefore, they are not part of their culture and norm. For this reason, they preferred not to use contraceptives.

> *There is no benefit in using contraceptives because using them is a sin … It is a sin to use something to block pregnancy. This should happen naturally. You should not stop having children naturally.* (Rural contraceptive nonuser)

Contraceptive Failure

There are times when a woman had conceived despite being on contraceptives. This appeared to deter some of the women, as this made them believe contraceptives were not effective after all. The women seemed to attribute contraceptive failure to the supply of, and consequently the use of, expired contraceptives.

> *The bad thing is when [you] discover you are pregnant and realize you had been using expired contraceptive. It is then that you will know that contraceptives are not good.* (Urban contraceptive user)

Lack of Adequate Information on Side Effects

There seemed to be a lot more information that women did not know about contraceptives. Some expressed that they would be encouraged to use contraceptives if only they were provided with more detailed information about them. Access to such information could be increased by bringing education about contraceptives to the women's own communities, especially to the communities far from the health centers. Participants were eager to know more about the side effects and details of how contraceptives work. They indicated that health providers did not teach everything about side effects. Because some of the men did not encourage their wives to use contraceptives, it would facilitate contraceptive use if the men accompanied their female partners to the health center and were more involved in issues on contraceptive use.

> *They [health care providers] do not teach everything. Therefore, I get additional information from my friends in the community. For example, they do not teach that these contraceptives can prevent you from having children for good. They never mention that, but I heard about it from the community.* (Rural contraceptive nonuser)

Lack of Confidence in Contraceptives Among Health Providers

It was reported that some of the health providers who were responsible for providing the health services did not live up to the expected standards. This was said to affect their clients and thereby negatively affect the extent to which they sought family planning services. Other women also felt that the health workers sometimes showed a lack of confidence in some of the modern contraceptives.

> *It just depends on the confidence the health worker has in modern contraceptives [and how s/he explains how they work]. … It will therefore depend on the health worker [himself/herself] [on whether s/he will motivate the women to use].* (Rural health provider, Kazungula)

Beliefs Surrounding the Use of Modern Contraceptives

Participants reported various beliefs related to the use of modern contraceptives. Some beliefs seemed to stem from the complaints about side effects. For instance, some women reported clots in the womb that moved like a baby. Others reported of having tumors in the womb that one gives birth to instead of giving birth to a baby. Despite being caused by other factors, some women blame modern contraceptives for some of the health-related problems they experience, such as miscarriage or tumors in the stomach. Some women believe that the tip of a condom could find its way to the womb or get stuck in the vagina.

> *There is a certain woman who … at the Central Hospital … it was found that she had some growths in her stomach. … She said the growths came from the pills she had been taking, but the doctors refused, saying they had grown on their own and were not caused by the pills. She still maintained that they had been caused by the family planning pills.* (Urban contraceptive nonuser)

> *Others go further to say even condoms are not good because they can get stuck inside the vagina and sometimes burst, causing unplanned pregnancies … Additionally, some people say it becomes a problem if the tip of the condom breaks and it goes into your womb. That's the reason I stopped using them.* (Urban contraceptive nonuser)

Distance to Facilities and Stock Outs

Rural women reported having less access to contraceptives than urban women, mainly because of the long distance to health centers. This situation is worsened by the fact that rural health centers were more likely to run out of contraceptives than urban health centers. Because of the distance to health centers, and because family planning clinics are scheduled only on certain days of the week, some women who are unable to get their new consignment of contraceptives can only obtain the contraceptives the following week. This puts them at risk for having an unplanned pregnancy.

Discrimination Against the Unmarried and the Young

Single women and young women also reported that they could not easily access modern contraceptives at health centers. There were some reports that some health care providers provided contraceptives only to married women. This was reportedly meant to discourage premarital sex and to avoid giving young women contraceptives that could be used for abortion. Therefore, such women were forced to access the contraceptives from private providers where possible.

> *It is not easy because … they ask if you are married and you have to be on your menses, and they check to ensure you are telling the truth. They say they do this to ensure people are not picking pills to attempt to abort.* (Urban contraceptive nonuser)

I have never seen a single person getting contraceptives there; I don't know if they allow them. Most single people just buy from chemists. (Rural contraceptive nonuser)

3.3 Facilitators of Modern Contraceptive Use

Perceived Benefits

Despite the side effects and negative beliefs about modern contraceptives, many women acknowledged the benefits of modern contraceptives and continued to use them. For example, perception of the risk of getting pregnant was reported to increase resolve to use contraceptives. This was complemented and sustained by the perceived benefits. The problems experienced with side effects were resolved either by trying a different type of contraceptive or enduring the side effects, sometimes with the hope or expectation that it was a passing phase. Almost all participants acknowledged the efficacy of modern contraceptives as well as the tangible positive effects that were reflected by those who used them. These participants had smaller, more manageable families that reportedly were more financially manageable, and mothers were healthier because their pregnancies were well spaced. The participants liked modern contraceptives because they were effective and a woman could become pregnant at any time, according to her wishes.

[Perceived risk of pregnancy] encourages them to come. Yes, it helps, because, like in the past, they have seen their friends die. They will decide to go the clinic. (Rural health provider, Kazungula)

My beliefs in modern contraceptives are based on what I have experienced using them, and they work for me very well, I don't have complications, and they are helping me space my children. (Rural contraceptive user)

Perceived Efficacy of Modern Contraceptives

There was no doubt that both users and nonusers alike considered modern contraceptives to be effective for family planning. Those who were users experienced the efficacy of modern contraceptives by looking at their own well-spaced pregnancies and children, while the nonusers reported seeing a change among community members who used contraceptives.

[Looking at] the people I know who are using them, I think they work very well in spacing children. I first saw from some women at our village who were using pills, their children were nicely spaced. (Urban contraceptive nonuser)

I see this from some women who use them, you find that a woman has a child this year and takes time to have another child because of taking pills or being on injections. (Rural contraceptive nonuser)

Availability of Alternative Methods

In many cases, women were motivated to use or even attempt to use modern contraceptives when they can select from a variety of available options for contraceptive methods. In this way they did not have to give up use of modern contraceptives because of the side effects.

> *Each woman can pick the type she wants; if she wants the implant or the loop, the pill or injection … We just come and get them. They are available and we don't buy them unless they are out of stock.* (Urban ANC user, 37-year-old mother of four, Chipata)

Acceptability of Modern Contraceptives

For the most part, contraceptives were readily accepted for use because many saw and experienced the benefit of spacing their children. As was the case with perceptions about efficacy, proof of the acceptability of contraceptives was seen in the many women who were using modern contraceptives, were seen obtaining the contraceptives from the health centers, and were spacing their children well.

> *They are many I cannot even count them. … They are many because I have seen them … the times I have come for antenatal. … I see them getting family planning (contraceptives). For some it is the pills, others injections, and for others, it is the loop.* (Rural contraceptive user)

> *Many are using them [modern contraceptives]. … Most of the people want to space their children. They do not want to have children anyhow because life has become expensive in our days, so you need to plan.* (Urban contraceptives nonuser)

Availability of Modern Contraceptives

Contraceptives were readily available in all health facilities, as well as in retail outlets. Pills and condoms seemed to be the most widely available modern contraceptives. Other types of contraceptives—including injectables, IUDs, implants, diaphragms, vasectomy, and tubal ligation—were usually available only at higher level health facilities. In some areas, as was the case in rural Kazungula, these contraceptive methods are made available with assistance from other organizations, such as the Planned Parenthood Association of Zambia (PPAZ).

> *They are [available]; they rarely run out. Even then, you can go and access them from another clinic.* (Rural contraceptive user)

> *We have oral contraceptives, we have injectables, we have condoms, both male and female, we have Jadelle, the implants. … Then with the help of PPAZ, we also insert the Intrauterine Contraceptive Device. … All the contraceptives are available within the health center … Except for the last one (IUD), which we only insert when the Planned Parenthood Association of Zambia comes (once in a month). But we provide the rest on a daily basis.* (Rural health provider, Kazungula)

Some participants, however, reported that some health centers occasionally ran out of their stock of contraceptives. This left the women with the option of using commercial contraceptives, but this was not always possible because not everyone had the money to buy them. Sometimes, therefore, the women were either asked to return to the health center a week or so later or were given condoms to use in the interim period. During such times, some women reportedly fell pregnant.

> *They are available sometimes, and at times, you will find that they are not available. Even when one goes for an injection, you find that there is nothing. They would maybe tell you to come like next week. … It's not like in the towns, where you find contraceptives all the time.* (Rural contraceptive user)

> *These drugs should not run out at the clinics. They are supposed to be readily available all the time because some women come here without money. When they say the drugs are finished and we are asked to go and buy; that is the time when they get pregnant its K10,000 and you don't have it. That is the time when people get pregnant.* (Urban ANC user, 37-year-old mother of four, Chipata)

Accessibility to Modern Contraceptives

Modern contraceptives were easily accessible and could be obtained from any government health facility that provided such services.

Procedures for accessing modern contraceptives were described as easy. One simply needed to go to the health center and register. For women who went for antenatal and postnatal care services, the health care providers informed them of availability of such products and encouraged them to use them to plan their families. Those who opt to use modern contraceptives are interviewed, examined, and put on a contraceptive of their choice. There are reports that women who have never had a child were discouraged to use modern contraceptives.

> *You go to the clinic and tell them you want to be on contraceptives. They will ask which type you want: the pill or injections. They will then give you whatever type you want. For those who have a baby or children, it is easy to access them. However, they don't give those who have never had any child before. They ask how old your child is before giving you contraceptives.* (Urban contraceptive user)

> *To obtain contraceptives, they just have to come to MCH (Mother and Child Health Services). That is all and we will give them. … As simple as that.* (Rural health provider, Kazungula)

Accessibility was further enhanced, in some cases, through outreach activities that took modern contraceptives to the communities that were far from health centers. Accessibility was also enhanced by the existence of a simple acquisition procedure. In some areas, community health workers visited women to provide information on ANC and encouraged them to enroll as contraceptive users. Participants indicated that the acquisition of information played an important part in increasing attendance for ANC services. Outreach activities were encouraged as a means of

increasing attendance to ANC clinics. This was particularly so because of the long distance that women had to walk to their nearest health center, which usually prevented them from seeking ANC services.

> *In this community … like transport, those coming from very far away … if they don't have transport like bicycles, it means they won't be able to come. … It does prevent because they need a bicycle to come to the health center. Even us, if we are to follow them, we need a vehicle or a motorbike.* (Rural health provider, Kazungula)

> *We introduce ourselves as community health workers and are checking on you, how they were feeling at the time, when they were told to go back for check-up. … We follow them up at their homes to find out if they are following the instructions that we gave them.* (Rural community health worker, Ndola)

Support and Encouragement to Use Modern Contraceptives

Other factors that encouraged modern contraceptive use included the encouragement received from health care personnel, as well as from friends, parents, neighbors, and other community members. Some health providers presented women who had been using contraceptives as role models to encourage other women to start using contraceptives.

> *We usually get those women who have been on family planning for a long time to talk to their friends … especially the new ones. … Some women would like to use them but are afraid because they hear, for instance, that if the Jadelle is inserted in you, the arm where it is inserted will be paralyzed … if you are inserted the loop, it will go into your abdomen and. … Therefore, we use those women who have had the loop and the Jadelle for some time, and they are role models. They teach their friends and, as a result, you will find that they [other women] will start coming [to access these family planning products and services].* (Rural health provider, Kazungula)

In some instances, husbands (partners) also provided support to their wives, escorting their wives, encouraging them to obtain contraceptives, and reminding them to take their pills or to go for their family planning appointments.

> *My husband, even my mother encourages me to use them to space children. She says the world is not easy [to live in] … so it is better to space the children.* (Urban contraceptive user)

> *I just have to remind my wife because she is also human and there will be a day she might forget. So, I just have to make sure that I remind her, to say you better make sure that you drink those things.* (Rural father)

Factors Influencing Choice of Type of Contraceptive to Use

In many cases, the choice of the type of contraceptive to use was based on the advantage of that contraceptive method over other methods. Some contraceptives were perceived to be problematic while others were not. For instance, some women preferred long-term contraceptive methods for the obvious reason that they would be safe for a long time. For instance, the injection was taken once every 3 months, unlike the pill, which required the woman to remember to take one every day. Forgetting to take the pill on any day was seen as putting a user at risk of getting pregnant.

> *I use the injection because I have seen that it is better than the pill, because the pill is not stable. When you forget to take it, even for just a day, you will conceive.* (Rural contraceptive user)

> *You look at how well they work and how easy they are to use. … Personally, I would go for the injection since [I] am quite forgetful. I wouldn't be consistent with the pill. … Among the modern contraceptives, I can use condoms and I have used them before.* (Urban contraceptive nonuser)

Some based their choice on the safety and accessibility of the contraceptive. Others are influenced by their friends or acquaintances, based on the type of contraceptive that those friends perceived as problematic or not. Because not all contraceptives are equally available and accessible, some women base their choice on the extent of availability of a contraceptive.

> *They [health care providers] come and tell us the methods available; how they are administered and how long they work. That helps you decide which one to go for. … I look at how effective the modern contraceptives work and also their safety … and [if] they are easily accessible.* (Urban contraceptive user)

> *Sometimes it's through encouragements from the friends that have used it … and which will also not cause any problem. This encourages you to try it as well. … There are times when you are using something or you have never used it. Those are the ones who will tell you how it works … They are my friend in the community; the women. They will tell you that since the pill has reacted on you; you can try the injectable. … They told me that they too had tried it and it works just fine.* (Urban ANC user, 37-year-old mother of four, Chipata)

Ability to Manage Side Effects

Side effects were an important determinant of the choice of modern contraceptive method to use. It was normal, therefore, to change from one type of modern contraceptive to another until one found a contraceptive that was seen as suitable and had fewer side effects. Similarly, some women based their decision about the type of contraceptive to use on advice from friends with experience in contraceptive use. Such friends usually recommended those contraceptives that they believed caused fewer problems while discouraging the use of those that caused problems.

Like I had mentioned earlier, that pill, I used to have heart problems with pills. Sometimes, I used to feel very hungry. That's why I decided to go for injectables. (Rural contraceptive user, 28-year-old mother of three, Chipata)

*When I get injected; the first month passes and in the second month that is when I get my period. ... In the past there was Microgynon. Then they changed it to Safeplan. It did not agree with me because I was getting my periods twice in a month, then I changed to injections. I have found that the injection suits me. (*Rural contraceptive user)

Decision Making Regarding Modern Contraceptive Use

Some women reported being the ones who were responsible for making the decisions about contraceptive use, arguing that they were the ones who would suffer if they were not proactive about making these decisions. For this reason, some of the women made unilateral decisions to start using contraceptives. At times, this was done without prior discussion or agreement with their husband. Health care providers asked the women to go with their husbands to obtain or discuss contraceptives, especially on their first visit to obtain contraceptives. Some of the husbands, however, refused to accompany their wives to the health centers or even refused to allow their wives to use any contraceptives. In some such cases, women resorted to using contraceptives without the knowledge of their husbands. In most cases, however, the woman consulted her husband about contraceptive use and the decision to use or not to use was jointly and mutually made. Male partners who were interviewed also agreed that contraceptive use was done after consultation between the two partners.

I make the decision myself. … It is up to you to decide whether to start the pill or not. (Rural contraceptive user)

If your partner agrees, you can go with him. [However], some of the men refuse. For instance, my husband has never agreed. At the time that I used [contraceptives], I would go to get them secretly and he did not know. I even used to hide the card. (Rural contraceptive nonuser)

However, husbands generally had a very prominent role when it came to making decisions about contraceptive use. They were responsible for the final say in whether their female partner should use contraceptives. Participants' responses revealed that, in several instances, husbands refused to allow their wives to use contraceptives. Among other reasons, husbands did not want their wives to use contraceptives because they wanted more children. One of the male respondents seemed to refute women's allegations that some husbands do not want women to use contraceptives, arguing that women are the ones who do not want to use contraceptives because they think they will be accepted more by the man if they provide him with more children.

You can only use contraceptives when you have sat down and agreed to do so with your husband. (Rural contraceptive nonuser)

Some men are difficult. … He used to say I should not use any contraceptive until we have enough children, maybe three children … before trying any of the contraceptive methods. Now, he has said we can consider trying the injection. Therefore, we will see how it goes. (Urban contraceptive nonuser)

Other Methods of Contraception

Apart from exploring the use of modern contraceptives, this study also explored the use of nonconventional methods of contraception. Study participants were able to identify and describe other methods of contraception, including the rhythm, withdrawal, and traditional methods. The traditional method was defined as a method where herbs and traditional concoctions were used to prevent conception. The rhythm and withdrawal methods were collectively referred to as natural methods.

Study findings show that some women used traditional contraceptives to prevent unplanned pregnancies. However, participants did not know the extent to which traditional contraceptives were used. This was said to be because not many who used traditional contraceptives openly discuss it. These traditional contraceptives also were not easily available because those who are responsible for dispensing them are afraid of repercussions in case something negative happens to the client.

It's not common. Others are afraid of showing it. The one who showed me is my sister in marriage. They know about such things at their home. She is the only one I know. (Rural contraceptive user)

I can't really know [if many people use traditional medicine in my community]. People don't come out in the open, especially if they are using traditional methods. (Rural contraceptive nonuser)

Among the reasons for using traditional contraceptives was that a lactating mother can produce more breastmilk compared to when she is using modern contraceptives. Traditional contraceptives may be preferred because they are seen as having fewer side effects than modern contraceptives. Older women are the ones who seem to encourage the use of traditional contraceptives.

I was told that the pill reduces the production of breastmilk. (Rural contraceptive user)

Some prefer the traditional method to the modern one because they fear that if they use the modern method, they may never be able to have any children again. (Rural contraceptive nonuser)

Traditional contraceptives were said to consist of roots or barks from one of the wild trees and could be used in one of two ways: by soaking it in water for drinking or by tying the roots around the waist. The root could also be pounded and added to porridge for consumption. When a woman wants to conceive, she removes the string from the waist. Most of the participants had never used

traditional contraceptives, nor had they seen anyone using this method. Rather, they reported having heard about such practices from other people.

> *I have actually used it before. … I soaked the "munkoyo" roots in water, and I used to take a cup of that every time after having sex. … I wanted to use the traditional method until my baby was born.* (Rural contraceptive user)

> *You wear it [string] for as long as you don't want to have children and remove it whenever you want children; that is how it works.* (Rural contraceptive nonuser)

Traditional contraceptives were seen as effective for preventing unwanted pregnancies, and those who had used them confirmed this. These contraceptives were said to be able to prevent unplanned pregnancy for as long as one wanted to. The procedures for using the contraceptives depended on the duration that one was planning to prevent pregnancy. For instance, the number of sticks one tied around the waist depended on the number of years that one wanted to stay without conceiving. Those who wanted to conceive after 2 years were said to tie two sticks around the waist or would consume two bowls of porridge in which a powder form of the contraceptive was added. Others, however, believed that sometimes traditional contraceptives were ineffective.

> *For tying in the waist, you put three sticks on a thread if you want to stay for 3 years without being pregnant. You tie that thread round your waist. For drinking, if you want to stay for 2 years without being pregnant, you take two sips. … When you take five sips, you stay for 5 years without being pregnant.* (Rural contraceptive nonuser)

Traditional contraceptives were reported to have a number of negative aspects that discouraged many women from using them. For instance, they were not readily available because the species of tree from which the contraceptive was made was usually very far away and therefore difficult to find.

> *[More people use modern contraceptives] because they are the ones that are easier to find and use. In the case of the traditional ones, you find that the trees needed to make the medicine are far [away] and may not be easy to find.* (Rural contraceptive nonuser)

Others believed that traditional contraceptives were difficult to administer because they were accompanied by many instructions. Sometimes, failure to follow the instructions puts the user at risk. For example, if a string worn around the waist gets cut, such a woman would never have children again. Traditional contraceptives may have side effects as well, such as failure to have regular menstrual periods.

> *That traditional method of tying a thread round the waist is not good because, if that thread gets cuts on its own, you can never conceive again. … You have to*

remove it on your own whenever you want to have a child. (Urban contraceptive nonuser)

I found problems with the munkoyo roots. I never had menses throughout the few months that I used them. I think I used them for about 3 months and I never had menses for that long. (Rural contraceptive user)

The natural method of family planning was common among those who had never used modern contraceptives and among those who had used modern contraceptives but no longer use them. This method was reported as not effective. One participant reported having become pregnant despite using the natural method. Although the method did not seem to be widely used, the withdrawal method was the preferred choice for some women.

I use the natural family planning method: knowing and counting my safe days. I know when I am not on my safe days. … At least the danger days are not so many. (Urban contraceptives nonuser)

We used condoms for a while, and then we stopped. We had not been using anything from that time until we started using the so-called Bemba method. … This is a situation where you have live sex, but the man ejaculates outside the vagina. (Urban contraceptive nonuser)

Some people seem to believe that panadol or cafenol can be effectively used as a contraceptive. Other women reported not using any family planning method at all, choosing to have as many children as possible. Still others do not use any method of family planning during the early part of their lives in order to have children in quick succession and give themselves time to relax and concentrate on other issues later in life.

I have heard that panadol and cafenol helps. You can take it as if it's a [contraceptive] pill. I just heard from an in-law but I have never seen it to be common. (Rural contraceptive user)

Some don't use anything, not even traditional contraceptives. They believe in having as many children as possible. (Urban contraceptive nonuser)

Suggested Additional Information on Modern Contraceptives

Most prominently, participants requested more information on how contraceptives function. They seemed to want to find out about this information especially in relation to how side effects occur and how they can be managed.

The information asked for I would like to know how the injection causes cancer; in what ways does it cause cancer? (Urban contraceptive nonuser)

> *I would like to know more about how they work, what to do with them, what not to do, such things; just more information about them.* (Urban contraceptive nonuser)

Among the nonusers, many reported that modern contraceptives were effective, and they showed the desire to start or to restart using them. They expressed the need for health providers to give more encouragement and information so that they can have firsthand information about modern contraceptives. Whatever information they possessed about contraceptives was obtained from their friends and was not always accurate. Women also wanted health care providers to let their clients know there are different types of contraceptives; women who may not like one type for one reason or another can opt for the other types as an alternative in order to prevent or reduce side effects.

> *I would like the clinics to offer more encouragement and more lessons as we come to the clinics so that we can also start using these modern contraceptives, not just hearing about them from our friends.* (Urban contraceptive nonuser)

4. Antenatal Care

4.1 Knowledge About Antenatal Care

In this study, participants showed appreciable knowledge about ANC services. Participants' range of knowledge included birth preparedness, malaria, and HIV in pregnancy, including danger signs during pregnancy, activity and exercise during pregnancy, childbirth, and the significance of good nutrition for a pregnant woman or a breastfeeding mother.

> *She has to eat foods from different groups. She has to eat different vegetables; prepared with cooking oil and/or with groundnuts, porridge with groundnuts. She has to eat these foods so that the baby can be a healthy child at birth.* (Urban ANC user, 30-year-old mother of four, Chipata)

> *What I know is that when you are pregnant and have HIV virus, you come to the clinic so you [can] be given some medicine to prevent the baby from being infected.* (Rural ANC user, 26-year-old mother of three, Kazungula)

> *A woman who tests HIV+ is supposed to breastfeed the baby, but only for 6 months, then she should give the baby a bottle.* (Rural ANC user, 26-year-old mother of three, Kazungula)

Participants were able to highlight some of the "do's and don'ts" and risks when a woman is pregnant and ways in which a pregnant woman should take care of herself. This includes the need to avoid physical work during pregnancy and the information that malaria could lead to miscarriage and that a newly born baby could be prevented from contracting HIV from a sero-positive mother.

Women recognized the importance and advantage of attending ANC where pregnant women can be monitored to prepare for a normal birth or for possible complications during pregnancy or childbirth assisted by skilled health care providers. They also recognized the risk of home delivery to both mother and baby.

> *When you are pregnant you can't know how the baby is. Maybe his head is in this position (using hands to indicate breech position). When the nurses examine the baby, they would know whether it is in the right position or not.* (Rural ANC nonuser, 19-year-old of one child, Ndola)

> *I was scared of miscarrying because of the malaria I had. … Sometimes it causes stillbirths.* (Rural ANC nonuser, 19-year-old mother of one child, Ndola)

Information Sources on Antenatal Care

Information on ANC was provided by nurses and by community health workers as well as by members of SMAG. In some areas, however, SMAGs were not formed because the health providers had not been provided with information and, therefore, did not know the process for the establishment of such groups. Other information was obtained from ordinary community members, such as female parents, neighbors, and friends. In most cases, such ordinary community members were said to be those who had experience with ANC. Sometimes, information was said to be obtained through radio, public address systems, and posters. Some communities used local churches to disseminate information. The number of health care providers during the teaching sessions varied from one to more than one. Some of the ANC teaching sessions are conducted by community health workers who sometimes are accompanied by nurses. Study participants reported that health providers used simple language that all were able to understand and allowed questions from those who sought clarification.

> *The one that give us the information is the doctor that works here. My mother too, my mother-in-law and my husband ... and other people that I know who go for antenatal care. There are women that do antenatal services and give information in the community. I just don't know what they are called.* (Rural ANC user, 26-year-old mother of three, Kazungula)

> *They make sure they use the language that we understand. They ask us if we have questions about things we are not clear about so that they make it for clear us.* (Urban ANC nonuser, 20-year-old mother of two, Ndola)

However, participants were quick to point out that the provision of in-depth and client- centered information sharing by the health center staff was hampered by the fact that, in most health centers, there are not enough health care providers and they are usually overwhelmed by excessive workloads. This scenario makes it difficult for them to adequately attend to individuals' information needs.

4.2 Products and Services Provided During Antenatal Care

Pregnant women received various services during ANC. Information is one of the most prominent services received. The pregnant women's weight and blood pressure were checked when facilities were available, and their blood was taken for laboratory tests. Among the reported products that pregnant women received during ANC clinic were mosquito nets, Fansidar, ferrous sulphate, and deworming tablets as well as antiretroviral drugs.

> *When a woman comes for antenatal, the nurse checks her womb, blood pressure, eyes to see if she has enough blood. … She checks how the baby is turning in one's womb and whether or not the baby is breathing properly.* (Urban ANC user, 30-year-old mother of four, Chipata)

The services here they give tetanus injections, weighing on the scale, and checking for high blood pressure and giving Fansidar and folic acid. … A pregnant woman who tests HIV+ is given medicine to prevent the child from getting HIV from the mother. (Urban ANC nonuser, 20-year-old mother of two, Ndola)

4.3 Initiation of Antenatal Care

The decision to attend ANC clinic was said to be made by the pregnant women themselves. However, some seemed to perceive the health providers as the ones who made the decision. This was by virtue of the advice or instructions that they gave to the pregnant women when they sought services from the health centers. First-time attendance of ANC services varied among the women, and various factors influenced early attendance of the ANC clinic.

4.4 Barriers to Early Initiation and Consistent ANC Attendance

Quite frequently, some pregnant women deliberately delayed the initiation of ANC. This is because they wanted to reduce the number of times that they would have to go for this service. Others believed that it was not possible for health care providers to feel and know the position of the baby during the early stages of pregnancy. Therefore, they waited until a period when they thought the baby was big enough for detection by health care providers. Still other women seemed to want to attend ANC only if they had complications. Therefore, as long as they had no cause to suspect that they had any complications, they stayed away from ANC. In some cases, some women, especially if it was their first pregnancy, did not initiate ANC because they did not recognize that they were pregnant. Husbands were recognized as important partners in women's initiation of ANC. Some husbands were reported as refusing to allow their wives to attend ANC.

… before 4 months would be a bit too early. … The pregnancy is not yet advanced and doesn't show physically. (Rural ANC user, 34-year-old mother of four, Kazungula)

When the women come alone, it doesn't work. You can share but she won't go and disclose to the husband. So unless you talk to them (as a couple) … now men are very difficult. Some would understand, even when you give a note to a woman requesting the man to come with her ... they won't come, so this is a hindrance. (Urban health provider, Livingstone)

Delays in Accessing ANC Services

Some women reported that they did not seek antenatal services for various reasons. Among the structural reasons was the complaint that ANC clinics were scheduled for the afternoon. This meant that, by the time some of the women were attended to, it was already late—sometimes already dark. After leaving the clinic, they reached their homes when it was very late. This was worsened by the fact that some of the women lived far from the health center and also by the fact that there were usually many people and, therefore, long queues. For this reason, participants suggested that ANC clinics take place in the morning and not in the afternoon and that the number of days for ANC clinics be increased to reduce congestion.

> *What they can improve on is that they usually come late because we live very far and we come early; maybe [close] to 7 hours or 8 hours. They usually sometimes come at 13 hours [and] finish between 15 and 16 hours. By the time we knock off, it would have been already dark. It would be better for them to be coming around 8 hours so that we can knock off early and reach home early.* (Rural ANC nonuser, 19-year-old mother of one, Ndola)

Poor Quality of Care

Dissatisfactions related to the quality of services also inhibited use of ANC services. One complaint pertained to the fact that, despite having arrived at the health center in the morning, sometimes not having had anything to eat before they started off, it took very long before the pregnant women were attended to. Having arrived at the health center in the morning, the women complained of hunger.

One participant expressed how she did not like it that she had rushed to the clinic for delivery and seemed to have been ignored by the nurses, although she had been referred to the health center because she needed to deliver by caesarian. She had expected to be taken to the operating room immediately upon arrival, which in this case did not happen.

> *The first time you come to register there is usually the problem of going home late because of the things they usually do. If you had started off without eating … time and time again you feel hungry. You will have come in the morning and go back at 16 hours. That is my concern.* (Urban ANC nonuser, 20-year-old mother of two, Ndola)

Fear of HIV Test

Other pregnant women chose not to go for ANC early to avoid being tested for HIV. In some cases this was because the women believed that an HIV test was only supposed to be done within the first 4 months of pregnancy, and they believed that if one goes late, then they would have gone past the number of days within which the test could be done. In some instances, women may not consistently attend ANC because they don't remember their appointment date, especially if there is no one to remind them about it.

> *What they fear mostly is to get tested [for HIV]. ... Whether you want to or not, they test you. They don't even ask if you want to be tested or not. … It is therefore better for me to stay away (from antenatal clinic).* (Rural ANC nonuser, 19-year-old mother of one, Ndola)

Availability of Mothers' Shelters

Pregnant women did not have many options about which health center to use. Usually, they went to the nearest clinic within their catchment area. In cases where the clinic was far away, they went early to the health center—a week or two before they were due—and stayed in the mothers' shelter at the health center to await delivery.

> *We have been told that immediately we are 9 months pregnant, we need to go and stay at the clinic until delivery time so that we deliver from the clinic.* (Rural ANC user, 32-year-old mother of five, Kazungula)

> *We go to those clinics because this is where we all come for the first appointment. Later, we go to the smaller ones. Thereafter, when you are about 2 weeks to giving birth we come and wait till we deliver.* (Rural ANC user, 26-year-old mother of three, Kazungula)

Competing Demands

Because most of the rural communities were farming communities, there were conflicting interests between the need to seek health ANC services and the need to attend to their economic or other reproductive responsibilities, such as the need to care for the other children at home. For these reasons, some pregnant women reported asking the permission of the health care providers to deliver from home. When health care providers could not convince a woman to deliver from a health center, they insisted that the women be assisted by a trained traditional birth attendant. In some instances when women would not agree to deliver from a health center, husbands were reported to play a part by urging their wives to attend to economic activities, such as harvesting, instead of seeking health care services.

> *This is a farming community. … When they are really busy in their fields, they value working in their fields [more] than coming here. Sometimes, again, even their husbands would say "you have already attended antenatal. I was there with you and you were told you were okay. Why, therefore, do you want to back again?"* (Rural health provider, Kazungula)

> *The other challenge is where you find that this woman has a lot of children at home … she wants to come and deliver here, but who does she leave these other children with? … Some would talk about food … "How do I go and stay at the clinic if I don't have food? … The little food I have, I have to share with my family."* (Rural health provider, Kazungula)

4.5 Facilitators of Early Initiation and Consistent Attendance to ANC

Much as some women said they would like a reduction in the total number of ANC visits a woman is expected to make, they were careful to note that ANC appointments should still be early enough to ensure that any complication or other such problem is discovered in time to ensure safe delivery.

> *At the clinic we were taught that the moment we are 3 to 4 months pregnant, we need to start going for antenatal. ... I would choose to start going for antenatal when I am 4 months pregnant. ... I would chose that number because at least it will not be difficult for them to help me if there is anything wrong with my baby and if the baby is not in the right position.* (Rural ANC user, 32-year-old mother of five, Kazungula)

Perceived Benefits

Although some pregnant women do not ever go for ANC, all of the women who were interviewed reported attending these clinics, albeit inconsistently. In most cases, women use antenatal health care services because they recognize the benefits of such services. Some women recognize the importance of ANC only after experiencing a complication during a previous pregnancy.

> *She (a woman) has to deliver from the clinic because it is safer there. Sometimes when a woman decides to deliver from home, she can encounter complications and might not know what to do. She might even die.* (Urban ANC user, 30-year-old mother of four, Chipata)

> *I used to have six children; three died. … When it came to having my fourth child, I was brought to the clinic, labor pains started, not knowing that the baby was not in good position … in no time the baby came out [but] he was dead. From that day onwards, I learnt that it is important to come to the hospital because when there is a problem, they help.* (Rural ANC user, 26-year-old mother of three, Kazungula)

Participants generally felt that ANC services were beneficial to those who used them. The benefits of ANC services were seen in the assistance that the women received from the health centers. Among the most important benefits of ANC were those services provided to pregnant mothers who had complications such as breech. In addition, according to a rural health care provider, the number of pregnancy-related deaths were said to have been reduced. Other benefits included the ability for women to be diagnosed for various health problems and treated as appropriate. A health care provider reported overwhelming attendance for ANC services at her health center.

> *The benefit I found in going for antenatal is that I am assisted each time I come when I have a problem such as high blood pressure and when I have discomfort in my stomach, am assisted quickly and they tell me or they check me for high blood pressure, and they tell me how I can take good care of myself during pregnancy.* (Urban ANC pregnant nonuser, 42-year-old mother of five, Chipata)

The most important benefit I found was on my first child, he was not in a proper position, and then when I came to the clinic he was put in a right position till the day I delivered. That is the most important benefit I got. If I was not helped, I was going to undergo an operation. (Rural ANC user, 32-year-old mother of five, Kazungula)

ANC Used as Passage to Accessing Other Maternal Health Care Services

Attendance, and particularly early ANC attendance, is used by health providers as a prerequisite to access subsequent maternal health care services. Participants reported that some women attend ANC clinics because those who do not do so early enough are turned away when they decide to use such maternal health care services as delivery and related care. This compelled some of the women to seek ANC services.

There are very few women in my community who don't go for antenatal care appointments. … If you don't go for antenatal care or maybe go at 8 months, when a problem comes, no one will attend to you, they will refuse. … You can't come and deliver from the clinic; even when there is a complication no one will help you. They will just chase you. (Rural ANC user, 26-year-old mother of three, Kazungula)

Importance Placed on ANC Visits

Some women may not attend ANC clinic because, at the time they are supposed to attend, they may be distracted by other responsibilities. In such cases, some women decide to prioritize ANC clinic. Any other responsibility, such as attending a funeral, is secondary compared to ANC obligations. Other women may arrange to attend to the other responsibility later on, but only after they had attended the ANC clinic.

I always made sure that whatever it is [that needed my attention], I left behind and dealt with it only after I got back from antenatal. (Rural ANC user, 26-year-old mother of three, Kazungula)

It is just the sensitization [that is needed]. When they are aware, [when] they have all the information and knowledge about the benefits of attending antenatal, it will be easy for them to come. … Some (women) come from very far away. For example, can you imagine a pregnant woman walking all that distance? ... So, the best is to follow them in the communities. (Rural health provider, Kazungula)

Encouragement and Support

A lot of the encouragement and support for ANC came from the pregnant women's mothers encouraging their daughters to attend ANC, providing them with health-related information, and reminding them whenever they seemed to forget about their appointments. Some husbands were also said to provide encouragement and support to their female partners. During delivery, the women were attended to by the nurse. They were, however, usually accompanied to the health center by their husbands, their mothers, or their mothers-in-law.

> *She [mother] says that if I stay at home [and not seek ANC services] I might not know what is happening to the baby. The child can get malaria, too, if I have malaria. It is important that I register early so that I am given medicine and a lot of other things.* (Rural ANC nonuser, 19-year-old mother of one, Ndola)

> *It is just my husband who supports me when it comes to going for antenatal care appointments.* (Rural ANC user, 26-year-old mother of three, Kazungula)

Participants pointed out that using friends to encourage and urge those women who do not attend ANC clinic contributes toward their attending ANC clinic.

> *If I have a friend who does not like coming for antenatal, meanwhile I do, I will take some time to encourage her to do so and tell her of the benefits. … The next time I am coming for checkups, she will definitely come along. … We could have a mixture of people from different communities where woman gets to share ideas with other women from different communities. It would help a lot.* (Urban ANC user, 30-year-old mother of four, Chipata)

Male Involvement

Male partners were among the people that women discussed antenatal issues with. Male involvement with ANC was mostly defined by reminding their wives of their appointments for ANC. In some cases where the women tested negative for HIV, they informed their husband about the test and encouraged them to test as well. Some health centers seemed to emphasize that male partners attend the first ANC clinic.

> *When I came for the first antenatal I was … advised to get the test by the one who was lecturing us on that day. … I decided it was important for me to get tested. … I was advised to tell [my husband] to test as well, so I told him how the results came out and advised him to test as well, and he accepted.* (Urban ANC nonuser, 20–year-old mother of two, Ndola)

> *Husbands are there (as well); like during the first antenatal (visit). … You will find that both the husband and the wife will get the information and it will be easy for them to act whenever they see a danger sign.* (Rural health provider, Kazungula)

Male involvement, however, seemed to be generally low. For one thing, some of the male partners were said to know very little about maternal care.

> *There is nothing he knows about how a mother should take good care of herself and the baby … there is nothing he (my husband) knows. (Rural ANC user, 32-year-old mother of four, Kazungula)*

Quality of Services

In terms of quality of care as a motivation for using ANC services, quality was measured by the type of reception received, the quality of ANC lessons, and the duration of the stay before being attended to. For instance, a mother who had delivered through caesarian section reported liking the manner in which she and her baby were handled after she had given birth. She was given injections to ease her pain after the caesarian operation and felt her baby was looked after very well. Some women liked the clinics for their cleanliness. Therefore, experience and reports of good quality influenced one's use of ANC services.

> *I like the way the nurse takes good care of us when we are pregnant and after delivery. The nurses are always near when we get into labor; they run a number of checkups to see how far one might take before delivery. They also encourage us a lot when we are in pain. … The care is what attracts me to always come here.* (Urban ANC user, 30-year-old mother of four, Chipata)

> *Because on the first day [of delivery], the baby was not given to me but taken to the nursery. That was a good service because they helped my baby to be safe and they also made sure they took care of me by giving me injections that reduced pain from the caesarian operation wound. I would say that was good service.* (Urban ANC nonuser, 20-year-old mother of two, Ndola)

Other motivators include the availability of a wide range of services and necessary equipment at the center, the cleanliness of the facility, and the availability of trained service providers. For instance, some women chose to go to those health centers that also carried out blood tests for various illnesses and had relevant equipment (e.g., blood pressure machine, stethoscope) and the capacity to conduct other relevant pregnancy tests.

> *At the hospital [not at the health center], they even ask you to go for high blood pressure (HBP) … so that they know how your blood is—whether you have enough blood in your body or not. That is appreciated and is one thing I found to be different there.* (Urban ANC nonuser, 20-year-old mother of two, Ndola)

> *I like this place because they treat us well and it's clean.* (Urban ANC nonuser, 42-year-old pregnant mother of five, Ndola)

4.6 People With Whom Pregnant Women Share Information

The information pregnant women received from health care providers was said to be shared with various people, including mothers, sisters, and other female community members. Similarly, pregnant women and mothers depend on any woman who has had the experience on the topic they are interested in for information and guidance. These usually include mothers, sisters, friends, and the elderly members of their communities, such as traditional birth attendants. The highlighted community members seem to be reliable sources of information, especially on traditional practices

and behaviors during childbirth. However, the participants were quick to mention that they find health workers to be an important source of information on health issues.

> *I share and discuss with fellow women in my community, sometimes my elder sister or my mother.* (Rural ANC user, 32-year-old mother of five, Kazungula)

> *No one decides for me. … My mother gave me advice, and the nurse too. I was told to be holding the breast while feeding the baby because if I don't, it will block the baby's nose, and then it will suffocate and die. The nurse's opinion matters, because it is the one that I followed.* (Rural ANC user, 32-year-old mother of five, Kazungula)

Participants made a number of suggestions about the means through which information should be disseminated. One of the ways suggested was for community health workers to go door to door in the communities. The current group teaching approach that the health providers used was recommended as helpful, because those who may not have understood have the opportunity to ask friends who were part of the teaching session.

> *They should be going into the community, going to tell them how they should take care of themselves. … The home-based care people can help.* (Urban ANC nonuser, 20-year-old mother of two, Ndola)

4.7 Birth Planning

All study participants reported that lessons on birth planning and preparation for emergencies in pregnancy were an important component of the ANC curriculum.

> *Yes, especially on delivery, the advice they gave is that you should always have transport money ready. Transport money is very important, at least you keep your transport money at least maybe a 100,000 Kwacha aside, because there are so many things that happen, there are so many complications. So, the advice that they give is that you keep aside transport money in case of anything because if you don't have transport money—maybe you go to the clinic and there is a complication—you will be told to go to the hospital now. If you don't have transport money there is no way you can go to the hospital … even if you are staying nearby, transport money should be there.* (Urban ANC user, 32-year-old mother of two, Livingstone)

When the participants were asked about what they did to ensure a safe delivery, they mentioned that they attend ANC, buy baby wear and delivery implements, and seek help from trained health workers when they experience health complications. There was also a mention of when women start to prepare for child delivery. Women start preparing for delivery when the pregnancy starts showing, after 3 months of pregnancy.

What one should prepare for the baby; the clothes, gloves, Jik [disinfectant], transport money, nappies, at least four wrappers in case the clinic does not have enough beddings. (Urban ANC user, 32-year-old mother of two, Livingstone)

We need to buy six brand-new chitenge materials and get three old ones from home, black plastic 2 meters long, eight pairs of gloves, bleach, shawl, baby blanket, bucket, and a cord clamp. (Urban ANC nonuser, 30-year-old mother of four, Chipata)

All this time when my wife was 6 months pregnant, that was when I started preparing for him, like buying clothes for the baby, get whatever is required for the hospital by the time she was due, everything was there for him. (Rural 26-year-old father of two)

A few mentioned putting aside some money in case of any emergencies that may arise during pregnancy. However, the few who mentioned putting aside some money mostly did so when the pregnant woman was nearing the date of delivery. This means, then, that preparation for emergencies was associated mostly with delivery.

Yes, I did as I said, that you just have to make sure there is an amount that you have to use at any time because you never know when the child is going to be sick and the mother. So at least you keep an amount in the house and whenever there is problem, you can easily dash to the clinic. (Rural 26-year-old father of two)

As part of preparation for safe delivery, the women and men recognized the importance of making use of mothers' shelters as a way of overcoming the problems of distance and avoiding delays to seek skilled attendance during delivery.

They just tell us how to prepare ourselves, just like where they have opened, where you have to go and wait until you give birth, mother's shelter, they tell us that if your pregnancy reaches 8 months you have to go and stay at that hospital until you give birth. (Rural ANC user, 25-year-old mother of three, Masaiti)

4.8 Danger Signs and Seeking Care During Pregnancy

Common Problems During Pregnancy

Some of the common problems experienced during pregnancy were reported as bleeding, backache, swelling, foot pain, dizziness, vomiting, and shortness of breath. The pregnant women were certain that these were caused by pregnancy because they did not experience them when they were not pregnant. When such problems were experienced, the pregnant women reported seeking health care from health centers. The women who manifested more pregnancy-related complications were reported to be younger women because their bodies were not as physically ready for pregnancy as the women who had had previous pregnancies.

A pregnant woman could experience headaches, stomach problems, and she could start bleeding way long before she is due for delivery. (Rural ANC user, 32-year-old mother of four, Kazungula)

The ones for swollen feet, hands, and even their faces. … Other experience heavy bleeding in their homes such that by the time they are taking them to the hospital they will have lost their strength. … One out of every five pregnant women experience that in the community. (Rural community health worker, Ndola)

Health workers in this study reported that the most common complications in pregnancy among pregnant women were those that were associated with malaria, bleeding during pregnancy, and high blood pressure. The danger signs that women were able to identify included bleeding, headaches, malaria, swelling of feet, and dizziness.

We have a few women coming with malaria. … Then some women come with antepartum hemorrhage … that is bleeding during pregnancy … and a few with hypertension." (Rural health worker)

They explain that if you are pregnant, if you have not reached at the right date of delivery and you start discharging something from your private part, those are danger signs, and if you start experience different types of diseases like you have sores on your private parts, you have to rush to the hospital. (Rural ANC user, 25-year-old mother of three, Ndola)

However, women and men reported that some danger signs were not even considered to be danger signs. Women did not worry very much when they experienced headaches, swelling feet, and dizziness.

[If I experience headaches in when I am pregnant] I just used to drink a lot of water and take panados because it used to be so severe. (Rural ANC user, 25-year-old mother of three, Ndola)

[If my pregnant wife starts to feel dizzy] she needs to be given enough fluids; you get like raspberry juice, something that will give her blood." (Rural father)

[When I experience swelling feet I do] nothing; the legs get better on their own. (Urban ANC user, 24-year–old, pregnant and mother of one, Livingstone)

Bleeding during pregnancy and malaria are among the danger signs that were perceived as serious. When women experienced these, they hurriedly sought professional medical attention. Other signs were perceived as not serious, and the women only used home remedies to treat them.

> *I had malaria, which put me down for a long time; I was also bleeding from down there [vagina] … and [I went to the health center to seek help].* (Rural ANC user, 25-year-old mother of three, Masaiti)

> *With my [swelling] feet, I just went to the clinic and they advised me to be seating, stretching my legs on the ground, and not using the chair when seating to enable the flow of blood.* (Rural ANC user, 25-year-old mother of three, Masaiti)

5. Delivery and Postnatal Care

5.1 Knowledge About Delivery and Postnatal Care

Participants showed substantial knowledge about delivery and postnatal care. For example, they recognized the importance of delivery from a health center and the dangers of delivery from home. Some women could explain well how to care for themselves and for their baby, particularly regarding cleanliness. It was commonly reported that a baby should not be removed from the breast before it was satisfied. Rather, the mother should allow the baby to stop on its own. They also stated that a baby should be kept warm and clean. They received other information on maternal and child care that included umbilical cord care, nutrition, sexual activity, and family planning. They were aware of the importance of seeking postnatal care after delivery for postpartum care at 6 days and then 6 weeks from delivery—the current health policy requires that women attend ANC at 2 days, 6 days, and 6 weeks after delivery. Women were particularly informed to rush to the health center for medical attention upon detection of any danger signs, which they were able to name. In particular, women who were pregnant for the first time and those who had had more than five pregnancies were urged to deliver from health centers.

> *Many die during delivery because they take it for granted that they will have a safe delivery from home and not knowing what would happen. When the complications arise, they run to the clinic and on their way perhaps she dies or the baby dies.* (Urban ANC user, 30-year-old mother of four, Chipata)

> *After delivery, you are supposed to go to the clinic after 6 days to bring the baby for BCG and after 6 weeks for the first vaccinations; that's what we were taught.* (Urban ANC nonuser, 42-year-old mother of five, Ndola)

Knowledge About Maternal and Newborn Danger Signs and Seeking Care

Participants showed awareness about the danger signs during pregnancy as well as the danger signs after delivery. They knew that these signs indicate that the woman or baby is at risk and should be rushed to the health center or hospital. Specific maternal danger signs were mentioned. Among them were bleeding, swollen feet and dizziness, and fever in the mother. For the newborn, danger signs included poor sucking or general feeding problems, fever, yellowing of skin, skin rash, and continuous crying. Upon detection of danger signs, women reported that the first reaction is to seek professional medical care.

> *They taught us the danger signs, that if you are having vaginal bleeding or thick vaginal discharge, all these are danger signs … frequent headaches; one has to go and tell them how they are feeling and they will be treated accordingly.* (Rural ANC nonuser, 26-year-old pregnant mother of two, Ndola)

> *Danger signs that can cause one to worry after you deliver is if you see that the bleeding is not stopping.* (Rural ANC nonuser, 19-year-old mother of one, Ndola)

Not everyone sought immediate health care. For example, a woman who experienced headache preferred to pour water on her head. Another woman reported realizing the importance of seeking postnatal care as a result of the interview for the current study. Some mothers seemed to delay seeking postnatal care, despite the fact that they or their children showed postnatal-related danger signs, such as diarrhea in children.

> *I did not consult a nurse because every time I experienced so much pain from my head, I took some painkillers and poured water on my head to try and stop the bleeding. This is because I did not experience any severe signs that could cause any complications before or during delivery.* (Urban ANC user, 30-year-old mother of four, Chipata)

> *When a baby is suffering from diarrhea and other things, sometimes one … may not come in time to the clinic or in that 6 days we are given. Sometimes women delay, thinking they will take the baby later.* (Urban ANC nonuser, 42-year-old mother of five, Ndola)

Information Sources on Delivery and Postnatal Care

Participants reported that most of the information on delivery and postnatal care was provided by trained midwives as well as other medical personnel. However, community health providers and traditional birth attendants were also common information sources. This included outreach programs by SMAGs who conducted visits to pregnant mothers. The information provided was said to be trusted, mostly because it reflected their reality—the women saw that all they were informed about was actually happening in their communities. In most cases, information from nurses and other trained health care providers was trusted more than the other sources.

> *It is the hospital staff [whose opinion I value most] … [because they] are the ones who are qualified and can give you more sensible explanations? Those who are not health experts cannot tell you sensible things.* (Rural ANC user, 32-year-old mother of four, Kazungula)

> *The caregivers found in the villages are the ones who give information on antenatal and delivery.* (Rural ANC nonuser, 26-year-old pregnant mother of two, Ndola)

> *I got the information from the SMAGs who came home. … On how to deliver, the SMAGs told me that there is a house at Fiwale where pregnant women who are 8 or about to reach 9 months rest and wait for delivery; that everything there [is] available and there are no hardships.* (Rural ANC user, 24-year-old pregnant mother of three, Ndola)

5.2 Dissemination of Delivery and Postnatal Care Information

Most information on delivery and postnatal care is disseminated verbally to the women in groups. This information is given to them when they attend antenatal clinics and also through outreach

activities, particularly by community health workers as well as soon after delivery. In some cases, the nurses gave demonstrations to illustrate their point. Rural areas were said to have more women who could not read and, therefore, written literature was not seen as ideal for disseminating information. Thus, the preferred mode of information dissemination for rural populations was verbal discussions and appropriate teaching aids, where available.

> *The nurse mostly demonstrates to us what is happening to the baby at different stages. She teaches us so well on these topics.* (Urban ANC user, 30-year-old mother of four, Chipata)

> *I prefer verbal [communication] because … there are times when one is given something to read [or] … to watch and one might not understand. However, when it`s verbal, one can understand and gains knowledge.* (Urban ANC nonuser, 42-year-old mother of five, Ndola)

> *I would like to get information through posters because all they do is just talk, so we need to see these things as well.* (Rural ANC user, 32-year-old mother of five, Kazungula)

Delivery Practices by Health Providers

Generally, the common practice at health centers immediately after delivery is to show the baby to its mother, weigh it, and then take it to the nursery. Participant responses seemed to suggest consistency in the procedures immediately after a baby is delivered. Some participants reported being given the baby soon after delivery, while others reported that the baby was taken to the nursery until the mother had bathed. In some cases, the baby was cleaned by the midwives and, in other instances, the baby was cleaned by the mother herself. She was also told to breastfeed the baby. While one participant reported being given her baby on the following day, others reported being given the baby the same day. A mother reported how, after delivery, the baby was bathed by her own mother only 3 days after she was discharged. The new mother was also taught how to breastfeed her baby.

> *After giving birth, they lifted the child and showed it to me while saying that have you seen the baby? And then I replied, "Yes it's a boy," then they took and started checking him and that is how they had put him on the scale. But as for the minutes, I can't know because I took long to stand, so I can't know whether its 2 minutes or more. … The baby was given an injection on the arm. … They said that it's for preventing him against any diseases.* (Rural ANC user, 25-year-old mother of three, Ndola)

> *Baby was weighed on a scale to see how much weight it had and then was taken to another room. The baby was not given anything after it was born. … I bathed the baby after delivery. I was just told to do so by the nurse. I don't know why; I never*

asked her. Soon as I came from bathing, I was told to breastfeed the baby. (Rural ANC user, 32-year-old mother of five, Kazungula)

[My baby was given to me] not too long after delivery. First, I was given an injection, then I went to have a bath, then I was done and my baby was given to me. … As soon as I came from bathing, I was told [by the nurse] to breastfeed the baby. (Rural ANC user, 32-year-old mother of five, Kazungula)

Depending on the complexity of the delivery, a pregnant woman is attended to by a nurse or a medical doctor. In rural health centers, the nurses are assisted by traditional birth attendants. Cases that could not be handled at the local health centers, such as delivery by caesarian section, were referred to higher level health centers. For example, a woman reported how she was examined during ANC and found to have fibroids. She was then referred to a higher level health facility. Because it was caesarian, she was delivered by a medical doctor. SMAGs were reported as trained to provide information on maternal and child health, including delivery and postnatal care, and were not involved in assisting with deliveries.

And if one requires an operation [caesarian section] … it cannot be performed here [at Rural Health Center]. Such a one would be taken to Zimba [Mission Hospital]. (Rural ANC user, 32-year-old mother of four, Kazungula)

SMAGs are not involved in delivery. Our role is just to teach the pregnant women and take them to the clinic. SMAGs are not trained to handle such matters. (Rural community health worker, Ndola)

TBAs were said to play a key role in encouraging women to deliver from health centers. Sometimes they escorted the pregnant women to the health centers to deliver. If a woman failed to go to a health center for delivery, a TBA assisted with the delivery. For instance, some women failed to deliver from health centers because of the unavailability of transport. Others were reported to simply deliver from home.

… I see some TBAs bringing some mothers to the labor ward. … A TBA's responsibility in the community is to assist people so that they don't deliver from homes or if they are to deliver from home … to make sure that [she] help[s] them to prevent complications. For instance, the last time, she was called because somebody delivered at home, but the placenta had retained. Therefore, she was called to help out to deliver the placenta. So, basically she is just there to help out so that the mothers are safe. (Urban health care provider, Ndola)

Postpartum Care Provided by Health Centers

As explained above, the mother is advised to return to the health center after 6 weeks and after 6 months. When the mother reports for postpartum care, she is interviewed and examined for risk factors that include headache, swelling of feet, abdominal pains, sores on the breast, anemia, edema,

bleeding, deformities, and challenges with the baby's sucking. A mother who delivered by caesarian section reported having her wound examined.

> *We check its wellbeing, any deformities, how this baby is fairing … is this baby growing; the (umbilical) and the baby's sucking (feeding) well. We check for all those things.* (Urban health provider, Livingstone)

> *We will look at the mother, and we look at the baby. For the mother, we would ask them if they have any headaches, swelling of feet, abdominal pains, sores on the breast. … For the baby … [if it] is not passing stool, if it's not passing urine, yellow coloration on the skin, or if it is not feeding well or is crying excessively. Those are the danger signs [we look out for].* (Urban health care provider, Ndola)

Extent of Seeking Postpartum Care

It seemed to be less common for the mothers to seek postpartum care, especially 2 days after delivery. This was more common for those who delivered at home. A health care provider illustrated this position by stating that out of 50 deliveries, only 10 were likely to seek postpartum care. One of the reasons for this situation was seen as the health providers' inability to emphasize the value of postpartum care compared to the emphasis that was attached to ANC and actual delivery. Postpartum care services were said to be conducted, instead, when the mothers sought other services, such as family planning or under-five care. However, this compromises postpartum care, as there is limited time to conduct postpartum services. This situation is worsened by understaffing for postnatal care on those other days, and the large number of people who had to be attended to.

> *[The extent of using postnatal care services in the community] is also on the lower end. I can't say it is 50 percent. … I would also say about 40 percent use (of postnatal services).* (Urban health provider, Livingstone)

> *We really don't accord the time for postnatal care. Just because there are other opportunities for postpartum care—such as other clinics like antenatal, children's clinic, and even family planning clinics—we agree that we would conduct postpartum care clinic [then]. However, during such days, only one or two health care staff are on duty, resulting in very long queues. We end up concentrating only on things like immunization and forget about postnatal care.* (Rural health provider, Kazungula)

While some mothers were careful to follow advice given to them by health care providers, others did not follow this advice. In particular, some mothers did not seem to attach adequate urgency to the need to seek postpartum care during the first 6 weeks after delivery. For instance, a woman reported how she decided to skip her 6-week postpartum appointment so that she could combine it with the under-five clinic appointment, which was scheduled for a week later. She did this to avoid going to the health center twice within a period of 1 week.

I felt there was no need for me to come for postnatal because my baby was born and we were both alright. … After all, they do not give any injections whatsoever. I just felt it was not important to come. … I took it for granted that I always have stitches after delivery … and so I am used to having those sores and I know how they heal. … I did not see the need, and I did not really understand the importance of postnatal care. (Urban ANC user, 30–year-old mother of four, Chipata)

The women themselves were said to assume that they were safe as long as they had delivered, and they saw no need for postpartum care. Similarly, relatively few radio programs aired content on postnatal care. Rather, there were more programs on ANC. One other reason for the reduced desire for postnatal services was reported to be the lack of understanding of the information that was provided on postnatal care. As a result, mothers still failed to recognize the importance of seeking this health service. In some cases, mothers did not go for postpartum care services at the right time after delivery.

I have heard little about postnatal on the radio. … I think that they should just bring a topic on postnatal that can help many mothers out there. I have just heard about delivery and PMTCT unlike postnatal. (Urban health care provider, Ndola)

I would say it is difficult for them to understand the information because for them, for as long as they have delivered, they take it problems have ended. They see no need of coming back again. (Rural health provider, Kazungula)

5.3 Quality of Delivery and Postnatal Services

Generally, the quality of delivery and postnatal services was seen as good. One participant compared these services with similar services in a neighboring country and indicated that the Zambian delivery and postnatal services are of high quality. However, it is important to mention that most women do not know what postpartum care is or what service they should expect.

I had antenatal care services from [named a neighboring country] on my first and second child. We never used to receive checkups on blood pressure or drugs to boost blood. All they could tell us is to eat body-building foods. So, when I came here and saw the services being provided—the blood test to check if your blood has any diseases so they can know how to prevent the child from contracting the virus; enough medication to prevent us from getting sick with malaria, iron tablets for blood—it made me feel that they really care for us. (Urban ANC user, 30-year-old mother of four, Chipata)

What is bad is when you go to the hospital and you call the nurse and they don't respond to you, like that you can't like it and you would wish to deliver from home. But when … we called them, they came on time. So I liked that. (Rural ANC user, 25-year-old mother of three, Ndola)

In some instances, however, some of the services were seen as needing improvement. For example, a woman complained of having been not well received when she went to deliver. In some cases during postpartum care, the baby was examined while the mother was not examined. A participant complained of how, during her postpartum appointment, her breasts were not examined. Another reported that the health care provider did not ask how she was feeling when she went for her postpartum appointment at 6 days after she had delivered. Examination of the mother and baby during postnatal care, in this case, was seen as not detailed enough.

> *I didn't like the service on the day I was taken to the hospital … the way they treated me because they didn't show concern…that I was supposed to be taken to the operating room immediately. I didn't like that. … They waited till it was morning … and the labor pains were increasing and I got scared that … I could rupture the membrane … or bleed and lose the baby or myself. … The nurses who came for the morning shift are the ones who prepared me for the operating room. That I didn't like, and I still complain.* (Urban ANC nonuser, 20-year-old mother of two, Ndola)

5.4 Factors Contributing to Delivery From Home

Participants reported that various factors contributed to home deliveries among women.

Past Home Births

Some women failed to recognize the advantage of delivering from the health center. Others habitually delivered from their home, where their previous deliveries had taken place. Among such women were those who had not had complications with any of their previous pregnancies or home deliveries or were simply used to delivering from home. Thus, they were oblivious of the benefits of delivering from the health centers and the downsides of delivering from home.

> *The other one refused to come for registration, arguing that she was used to delivering from home and would like to continue with her style. She said that there was no importance or reason for coming.* (Urban ANC user, 30-year-old mother of four, Chipata)

> *If they prefer to deliver at home, mostly it is those who have had a lot of pregnancies and they will say, "I have been delivering at home, why I should go to the clinic?"* (Rural health provider, Kazungula)

Perception of Poor Quality of Services at Health Centers

Failure to deliver from the health center could be due to perceptions of, or even experiencing, poor service from the health care staff. Such an experience could have made women refuse to deliver from a health center again. In some cases, the fact that some women received information about delivering through third parties or even fourth parties made it possible that such sources of information were unreliable for providing objective or constructive information.

I do not know what they mean because for me, it is the other way round. I have received great help from the clinic. I think most of it is hearsay and some information coming from someone who perhaps just delivered once from the clinic and concluded that there was no proper help from the clinic. (Urban ANC user, 30-year-old mother of four, Chipata)

*My neighbors discouraged me from attending antenatal care. (*Urban ANC user, 30-year-old mother of four, Chipata)

Lack of Knowledge of Expected Delivery Date

Some pregnant women delivered from home unintentionally. For example, one participant revealed how she had delivered from home because she did not recognize the signs of labor in time. By the time a taxi was found to take her to the health center, she had already delivered, assisted by a TBA.

Inability to Buy Delivery Requirements

Some women may decide to deliver from home because they are embarrassed that they were unable to buy the items needed to prepare for the birth of their babies. They were also particularly conscious of the fact that some of the pregnant women who gave birth at the health center were able to provide the materials, thereby increasing feelings of embarrassment for those who were unable. The feelings of embarrassment were present even when health care providers urged pregnant women to provide whatever items they could afford, including old baby clothes, as long as they were clean. Health providers also said that they never turn away pregnant women who do not have all of the materials required in preparation for delivery. For instance, a health care provider asserted that emphasis was placed on the need for a mother to deliver from the health center, rather than on the need for a pregnant woman to provide the requested materials in preparation for delivery.

Even if we have told them that we are not after clothes, but we are after their health, they will say they don't have baby layette (and other baby materials in preparation for birth). At the health center, they will find their counterparts who have a lot of materials for the baby's birth. They, rather, just resolve to stay away. (Rural health provider, Kazungula)

The only thing is that the clinic demands a lot of things from the women. … The things they require us to bring as part of preparing for the newborn baby. (Urban ANC user, 30-year-old mother of four, Chipata)

Failure to Recognize Labor Signs

One other reason that some women delivered from home instead of at the hospital was because they failed to recognize their labor signs and realized that they were in labor when it was too late. Other women simply still had not recognized the risks that go with home delivery. As long as they had not experienced such risks, they were less likely to want to deliver from the health center.

My plan was to give birth at the clinic. … However… I started feeling pains at around 24 hours and thought it was just ordinary backache. Yet, it was labor and it started increasing and it was going towards 1 a.m. They tried to look for a car by the roadside and, by the time they came back, they found I had already given birth. (Rural ANC nonuser, 19-year-old mother of one, Ndola)

I started experiencing pain in my abdomen, but I ignored it, thinking it was the usual pain. (Urban ANC user, 30-year-old mother of four, Chipata)

Low Use of Mothers Shelters

Mothers shelters were meant to make it easy for women to deliver from health centers. However, one health center reported such an overwhelming response to the mothers shelter that it was often full to capacity and lacked adequate space. Health center authorities often had to direct other pregnant women to one of the health center wards. Unfortunately, the fact that the mothers' shelter was always full compelled some of the women to delay going to the mothers shelter until some of the mothers delivered and alleviated the overcrowding at the shelter. However, a substantial number reported delivering on their way to the mothers' shelter.

Sometimes our mothers shelters become small. Right now, I think we have over 40 women there at the mothers shelter … and it is full. As a result, others would think twice about coming to the mothers shelter because they ask themselves if there will be space for them to sleep. Therefore, they will prefer to stay at home and wait for labor to begin. By the time labor sets in … most of them have ended up delivering on the way. … Here, most of the women [deliver from the health center]. The past month only, we had seven deliveries. … We also had about seven or eight who came to report that they had delivered on the way. … Very few deliver in their homes. (Rural health provider, Kazungula)

6.0 Conclusions

The arrival of a newborn in any family brings a lot of joy and happiness. However, this is not the case for every Zambian family. To many, this period spells the beginning of worries and uncertainty. For many Zambians, the coming of a newborn has challenges of morbidity, disability, and many days of worrying about the outcome of maternal and neonatal complications.

The findings show that there are myriad challenges that prevent women from adequately using the various maternal and neonatal goods and services. The resulting trend is that many women do not consistently attend the various ANC and postpartum appointments, which hinders the early detection and management of complications. In addition, this trend also results in complications being reported to specialized health workers at times when the situation has already clinically deteriorated to stages where no effective remedy can be applied.

Overall, this study contends that women and/or couples do not fully use the available goods and services because they fail to attend appointments that facilitate the early detection of complications, the inability to recognize potential danger, the delay in deciding to seek necessary medical attention, the delay in presenting the cases to skilled health workers, and the delay for health workers at a facility to provide the women with specialized services within the required time.

Therefore, the findings of this study have been interpreted within the context of the famous three delays (3Ds) model, which links maternal mortality to a number of interrelated delays that ultimately prevent a woman from accessing the health care that she needs.

The following obstacles were identified in this study:

The first obstacle relates to the delay in seeking appropriate medical care. In this study, the delay extends from the time when women are supposed to attend their first ANC to the urgency of their actions when they suspect or experience an emergency.

The study suggests that women delay seeking appropriate services for various reasons, including:

- Prohibitive transportation cost.
- The inability to recognize danger signs and emergencies.
- Limited information, especially on general maternal and neonatal health services.
- Limited access to information. Most of the populations can only be reached with health information through interpersonal communication at the health center. These access limitations are compounded by the few learning opportunities at the community level. Communication via use of print materials is also hampered by high illiteracy levels among the target audiences.
- Gender inequality, which is particularly challenging because the woman is not necessarily the decision maker about receiving specialized help from the health center and also may be unable to pay for transport and related health care costs.

The second obstacle is related to the delay in reaching an appropriate facility in time. In addition to transportation costs are the challenges of long distances to health facilities, poor road infrastructure, and lack of transportation.

As already alluded to, women and couples are facing many challenges in preparing for emergencies, and frequently they lack money. Traveling the long distances to health centers is impossible for pregnant women and women with complications, who would need to walk to the health centers or use the available modes of transportation, which are not fast enough. Most health centers in rural Zambia provide services to a wide catchment area, covering a lot of villages, and most of the villages are far from these health centers. Thus, women have difficulty reaching the health centers in time and are unable to make the recommended ANC, postpartum, and neonatal appointments. The available modes of transportation in most rural areas are bicycles and the scotch-cart, which are not fast enough and are inadequate for the deplorable road conditions. For instance, roads are sometimes completely impassable in the rainy season in most rural areas.

The third obstacle is related to the delays in receiving adequate care once a facility is reached because of staff shortages and the unavailability of medical supplies. This study suggests that:

- The health facilities are understaffed and the few available health staff members are overwhelmed and, therefore, cannot provide adequate attention to women;
- Some health centers do not even have health staff and are normally managed by community health workers with limited skills;
- Most health centers lack adequate equipment; and
- The long queues cause delays in women accessing the required care in time.

Finally, based on this study's findings, it can be argued that if any interventions are to have a meaningful impact in increasing the use of safe motherhood goods and services and in improving the lives of women, the interventions have to address the highlighted delays by reducing the time between the onset of the complication and the time skilled health workers attend to the woman.

7.0 Recommendations

Cross-Cutting

1. Design interventions to improve the interpersonal skills among health workers.
2. Use community health care providers to proactively disseminate information on ANC, delivery, and postnatal and other reproductive health issues; with deliberate effort to target those who do not seek health care services or who deliver from home, and also provide greater support to first-time mothers.
3. Strengthen and upgrade existing lower level health centers to higher level facilities in order to provide a wider range of reproductive health-related services.
4. Reduce reliance on community members for information by providing more reliable information-sharing and learning opportunities.
5. Advocate for strengthening health systems.

Antenatal Care

6. Use more learning-teaching aids to enhance understanding by the pregnant women/mothers.
7. Decongest ANC clinics by increasing the number of days on which pregnant mothers can receive ANC. This will also serve to reduce the number of women per session, allowing more time for discussion and making sessions more interactive.
8. Conduct ANC clinics in the morning, especially for rural areas, to complement the afternoon clinics in order to cater to women who stay far from the health centers.
9. Reemphasize the importance of early attendance for ANC services.

Family Planning

10. Provide more information on the other contraceptive options at the women's disposal in order for them to realize that they can reduce or avoid side effects.
11. Provide more opportunities for the public to access information on contraceptives from health centers in order to reduce reliability on community members who discourage use.
12. Increase and improve youth-friendly reproductive health services to encourage youth to prevent premarital pregnancies.

Delivery and Postnatal Care

13. Increase campaigns targeted to male partners in an effort to increase their involvement in reproductive health issues.
14. Emphasize to both health care providers and pregnant women and mothers that postpartum care is equally important for both mothers and babies.
15. Use local community role models to communicate the benefits of using delivery services at health facilities and the disadvantages of home delivery.

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